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The Water Supply of Leavenworth.

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It has been a matter of common observation among the physicians of this city that typhoid fever has been more prevalent of late years than ever before. In fact until about five years ago it was considered a rare disease, and one physician, who is not now in practice says, that in an active practice of over twenty years he never saw a case of genuine typhoid fever, the period spoken of extending up to 1883. Another gentleman says that the first case that ever occurred in this city occurred in his practice in 1875.

It is a fact worthy of comment also that diphtheria, which is a disease incident to the same conditions that produce typhoid fever, was almost an unknown disease here until the last few years. It has never assumed an endemic form, but cases have been reported with sufficient frequency to enroll it in the list of our local diseases.

In the records of Mount Muncie cemetery it is scarcely possible to find the name "summer complaint" until about five years ago. Of course this is partly accounted for by a change in the current nomenclature of disease, but there is little doubt that the pathological conditions aggregated under this name as it is now used have been more prevalent during the last five years than they were previous to that time.

"Winter cholera" was never heard of in Leavenworth until about the year 1886, when it made its appearance in the form of a well marked endemic. The next year it was repeated in a less aggravated form, and enteric disorders of a similar character have been common ever since with a diminishing frequency, to the present time, varying in intensity and character according to the season and the circumstances.

It is a significant fact that it was just previous to this date that the character of the water supply of Leavenworth began to change. In 1882 the ordinance was passed by the city council authorizing the organization of the Leavenworth Water Company, but it was considerably over a year before it was in actual operation. This brought the date well down to 1884. During 1883 and '84 the present system of sewers was constructed. Miles of great ditches were dug through the streets and alleys, varying from three to sixteen or eighteen feet in depth. It was one of the common experiences of the workmen who dug these ditches and laid the sewer pipes, to find that neighboring vaults and cess pools were being drained to a greater or less extent into the excavations and their work was not only impeded but rendered extremely offensive from this cause.

The proposition is here submitted that at this time the purity of the well water in every well in the city, not more than two blocks outside the area covered by the sewers, was either destroyed or rendered questionable. The digging of these ditches over so extended an area, so disturbed the equilibrium of the stratum of moisture as to place vaults and cess pools in direct communication with all wells extending to the same depth or below them.

Scattering cases of typhoid were reported as early as 1875 as has been said, but the increase in their number was so slight as to be readily accounted for by the accidental contamination

of the water with organic matter. In 1884 and 1885 however, typhoid fever became more common, and in 1886 and 1887 it assumed the proportions of an endemic. The next year the number of cases fell off markedly but the number was still large. This was undoubtedly due to the efforts of physicians to induce people to desist from the use of questionable water, or where they were compelled to use it to adopt methods of purification. There was a great outcry against the well water, as it was found that almost every case of typhoid was among people who made use of well water. Physicians unhesitatingly recommended patients to drink hydrant water or cistern water and in any case to adopt methods of purification, to avoid drinking water from any well, no matter how clear and cold and sparkling it might be. But of course there was a large number of people who *knew* that *their* well was all right; there *could'nt* be anything the matter with *their* well.

About this time "winter cholera" made its appearance also, and the number of cases was very large. It was not a grave disease at all but the symptoms were sufficiently distresssing to keep physicians very busy. In 1888 and '89, and during the present year there has been a steady decrease in the number of cases of typhoid, but it still remains an ever present factor to be considered by the physician in diagnosis. The allied enteric diseases while they have diminished greatly have scarcely kept pace with the diminution of typhoid. I refer to dysentery, summer complaint and those disorders of the stomach and bowels which in children especially are so frequently referred to indigestion and fermentation as a cause. It is susceptible of proof by experiment that the fermentation and indigestion are an effect and not a cause, except in a secondary manner. Give the patient pure water and sterilized food and the fermentation disappears. Render the stomach and intestine aseptic and normal digestion is re-established.

Enough has been said to show the status of affairs that leads to a consideration of the water supply of Leavenworth.

This supply is from the usual three sources found in cities—cisterns, wells and hydrants; the last named being simply points of issue for water drawn primarily from the Missouri river and rendered presentable to the eye by the processes of subsidence and decantation. About one-fourth of the population use the city water in their homes. About three-fourths therefore use either cistern or well water, and as most people prefer well water for drinking purposes, it is probable that the majority of these use well water in their homes.

It must be remembered however that in all business houses and public buildings, almost without exception the city water is used, this includes Fort Leavenworth and the Soldiers Home and increases the number of people using city water very greatly.

The cisterns need very little consideration at our hands, as manifestly the water cannot be contaminated from the surrounding soil unless the cistern is cracked and leaky. The only other sources of contamination are the atmospheric air through which it passes in descending as rain and such organic matter as it may collect from the roofs. The latter is the most important source of impurity in consequence of the large number of English sparrows and other birds that befoul the roofs, but notwithstanding these sources of impurity a chemical examination shows our cistern water to be by far the purest water we have at our command. Excluding therefore cistern water as not liable to general contamination we take up hydrant water.

While our hydrant water is not all that the water company hope to make it, it compares very favorably with that of any city in the Missouri valley, I am told. A sample drawn from one of our hydrauts was sent by our local board of health to the chemist of the State Board of Health, Dr. Reid Alexander, and an analysis made with a view to establishing either its purity or impurity. Dr. Bidwell, Secretary of the local board kindly gave the writer access to the letter of the State chemist and we give the analysis in full:

	Grs. per U. S. gallon
Organic matter.	.300
Silica, oxide of iron and alminium. . . .	.500
Bicarbonate of calcium	6.960
Bicarbonate of magnesium	1.392
Bicarbonate of sodium and potassium .	4.833
Sulphate of sodium.	5.628
Chloride of sodium.	1.383
Total solids	20.994

Chlorine	.835
Free ammonia . . parts per million . .	.280
Albuminoid ammonia . . do	.170
Microscopic examination	Infusoria

Concerning this water and its analysis Dr. Alexander remarks in conclusion: "This water is condemned by the best standards, for drinking purposes, owing to the amount of free and albuminoid ammonia found to be present."

This would be perfectly true if we are guided entirely by the conclusions of Prof. Wanklyn, the author of Wanklyn's method of estimating albuminoid ammonia; for Wanklyn says distinctly that "albuminoid ammonia above 0.10 parts per million begins to be a very suspicious sign; and over 0.15 parts per million ought to condemn a water absolutely."

But in direct contravention to this, please notice the remarks of Dr. Chas. Smart of the U. S. A., in his elaborate monograph on water in the "Reference Handbook of Medical Sciences." He says in speaking of this very conclusion of Wanklyn's:

"Most of the rain waters of the United States, collected in clean dishes as they fall from the clouds would be condemned by the Wanklyn's dictum. Most of our river waters which are in daily use would be condemned on similar grounds. In the experience of the writer, while Wanklyn's limit of allowable impurity may be accepted in cases of wells where the danger of infiltration from privies is great, it should be extended to 0.20 parts per million in the case of our river and other surface waters, as it is not until the albuminoid ammonia reaches or *exceeds* this quantity that a taint becomes developed in the water during warm weather, and that diarrhœa, dysentery, or febrile conditions are connected with its use."

This shows that careful and exhaustive as were the experiments of Prof. Wanklyn, and valuable as were his conclusions, they must be revised very materially if Dr. Smart is correct. And the facts as they have occurred in Leavenworth seem to corroborate the opinion of Dr. Smart. Among the scores of cases of typhoid that occurred, not a single case so far as the writer was able to learn was traced to the hydrant water. But Dr. Smart says: "Typhoid fever may be disseminated by well waters that contain only traces of free ammonia and the albuminoids, but in these instances the nitrates and chlorides are usually in excess." If well waters containing only traces of free ammonia and the albuminoids may generate the baccillus of typhoid fever why not a river water. The Leavenworth hydrant water with free ammonia present to the amount of 0.280 parts per million, and albuminoid ammonia to the amount of 0.170 produces no typhoid fever; and notwithstanding there has been no diminution in the amount of that water used for drinking purposes there has been a steady decrease in the number of cases of diarrhœa, dysentery, and such diseases up to the present time, and during the last six months the city has been very healthy.

There is little doubt that the endemic of winter cholera, so-called, was caused by the defective system of subsidence and decantation then in use by the water company, as the vast majority of cases were in hotels and public institutions where the city water was used exclusively, and in addition to this large numbers of people by the advice of physicians used hydrant water for drinking puposes, in order to escape the danger of typhoid fever which threatened them in drinking well water.

But the fact that there has been a steady decrease in the occurrence of enteric and gastric diseases, not to overlook the effective work of physicians in inculcating methods for the purification of well water, would argue that there has been a corresponding increase in the purity of the city water. This is undoubtedly the case.

Of course there is still room for improvement, but the recent completion of a new primary settling resevoir has added wonderfully to the facilities for furnishing pure water. This resevoir is a remarkable structure in the completeness of its appointments and was constructed at an enormous expense. Its results however will fully justify such an expenditure if it is used with the effect that might be expected.

The defect of the old reservoirs was in the fact that owing to their constant use and the manner of their construction, they could not be cleaned of their accumulating sediment

oftener than once in six months and then only in a hasty and ineffective manner. The result of this condition of affairs is very clearly shown by a series of experiments instituted by the writer previous to the completion of the new reservoir.

Dr. Edmond A. Parkes, in his excellent work on practical hygiene says with reference to the meaning of qualitative tests in determining the potability of water: "The coincidence of easily oxidizable organic matter, of ammonia and of chlorine in some quantity, would be in favor of an animal origin" of the contained impurities.

Acting upon this as a basis, a sample of very nice looking hydrant water was tested for those substances, using Messler's solution for ammonia, the chloride of gold for oxidizable organic matter and the nitrate of silver and potassium chromate test for chlorine.

The sample showed the presence of both ammonia and oxidizable organic matter, and the chlorides in half an ounce were saturated by four drops of the test solution of nitrate of silver.

These samples of water were then taken from the open river, and after allowing them to stand until all insoluble matter had settled to the bottom and the supernatent liquid was perfectly clear, they were subjected to the same tests. The first sample was taken from near the bank of the river between the two sewers that empty at the foot of Cherokee and Choctaw streets respectively, and furnished very nearly the same reactions as that from the hydrant. The reason that the reactions furnished by this specimen were so slight is that the sewer at Cherokee street which is the one furthest up stream is a very small one, a mere branch. Whereas the second specimen, taken from opposite the Choctaw street sewer, furnished marked reactions for ammonia and oxidizable organic matter, and an amount of chlorides so enormous that we did not attempt to estimate it. The third sample was taken from the mid-current of the river on the pontoon bridge, and the fourth from near the bank of the river opposite the pumping engines of the waterworks. These two samples furnished exactly the same reactions; faint reactions for ammonia and oxidizable organic matter and the chlorides in half an ounce were saturated by two drops of the test solution. These tests were afterwards supplemented by the permanganate of potassium and oxalic acid test in order to obtain a roughly quantitative idea of the amount of oxidizable organic matter in each specimen. The relative strength of the test solutions was as one to fifteen, that is, it required fifteen drops of the acid to neutralize one drop of the permanganate in one half an ounce of distilled water.

The first sample showed an amount of organic matter measured by ten drops of the oxatic acid solution; the second about ninety drops, the third nine drops and the fourth eight drops.

In other words, previous to the completion of the new reservoir, the hydrant water contained just twice the amount of chlorine that was contained in the water from the open river taken anywhere above the Cherokee street sewer, and at least two-fifteenths more oxidizable organic matter.

Only one possible explanation of this suggests itself and that is the one which has been given. The water was pumped from the open river through a pipe that extends out into the river about forty feet. It was pumped directly into the first settling reservoir, allowed to settle, drained off into a second reservoir, allowed to settle again and then pumped into a third reservoir, from which it was distributed to the city, the post and the Soldier's Home. No provision had been made for flushing the bottom of these reservoirs, and not being able to clean them oftener than once in six months the accumulations of sediment became very large, and the pumping in of the new supply each day kept this sediment in a constant daily agitation.

This condition of affairs is largely remedied by the new reservoir. It is provided with two large exit pipes and sluices by which the whole fifteen million gallons can be turned into the Missouri again in a few hours, carrying all the sediment with it, and as the bulk of this sediment falls in the primary reservoir, in this way the evil is largely remedied.

But an examination of the water of the Missouri river opposite the pumping engines shows the presence of organic impurities,

which though small in amount demand an explanation. If they arise from contaimination with animal matter as seems probable, the source of such contamination must be sewage entering the river at some point above.

Competent authorities have stated that sewage diluted with twenty times its volume of running water is completly destroyed in running nine miles. Other authorities presumably quite as competent flatly deny that such is the case. We are therefore driven back upon the facts at our command for argument. We know that the sewage of Fort Leavenworth enters the river nearly two miles above the city; and we know that the current of the Missouri river runs at the rate of about four miles an hour. It is therefore only about half an hour after the sewage of Fort Leavenworth enters the river that it is carried down to a point opposite the pumping engines.

When we consider these facts, it is little less than marvelous that the amount of organic impurities found at this point should be so small, and it shows that if this one source of contamination was removed we might well be proud of old Missouri as a source for our water supply. It is understood the water company is making strenuous efforts to accomplish and no doubt they will succeed.

But it is when the hydrant water is compared with the well water of Leavenworth that its purity looms into very magnificence.

The water from fifteen different wells from as many different portions of the city was examined and in every case there was found from one to twenty-four times the amount of chlorides found in city water. In almost every specimen was found ammonia, in all but one a distinct reaction for oxidizable organic matter. In two were marked reactions for nitrates, several being doubtful; and the majority showed the presence of nitrates by the bricine test. Such facts speak in no uncertain terms. It will be remembered that Dr. Smart says: "Typhoid fever may be disseminated by well waters that contain only traces of free ammonia and the albuminoids, but in these instances the nitrates and chlorides are usually in excess." And here we find the explanation of the fact that all of our typhoid fever cases were traceable to well water and none to hydrant water.

Chlorides were present in excess in all the specimens examined, and nitrates present in the majority.

How then is it that our typhoid fever has diminished to such a marked extent, that to the casual observer it has almost disappeared? The answer is, by adopting methods of purification. The methods of purifying water for drinking purposes are so well understood that it is hardly worth while mentioning them, except to remark that the simplest methods are the best. Not only because the best methods happen to be the simplest, but because it is an unfortunate fact that a vast number of people will not take the trouble to adopt any but the simplest possible method even to escape typhoid fever. It is therefore advisable to recommend only those methods that are easily carried into effect, such as boiling the water and the use of alum for the precipitation of impurities. The majority of people have a singularly blind and abiding faith in ordinary filters. It is often necessary to explain to people in the most careful manner the apparently self evident fact that filters cannot possibly extract any but the insoluble impurities. and unless they are frequently cleansed are liable to become sources of contamination. Charcoal filters especially inspire the utmost confidence. These of course are better than ordinary filters because the charcoal absorbs the free amonia with great avidity, but it must be remembered that there is a limit even to the capacity of charcoal to absorb ammonia, and when the limit is reached the filter is just as useless as any other.

The conclusions to be arrived at from this study are:

First—The cistern water where the cistern intact is the purest water in Leavenworth.

Second—That the hydrant water stands next in purity and is undoubtedly improving.

Third—That the maximum amount of albuminoid and free ammonia allowable in river waters used for general potable purposes should be placed much higher than has heretofore been thought; and the opinion that the Leavenworth city water should be condemned for drinking purposes according to the best standards is one from which we entirely dissent.

Fourth—That a swiftly running current like that of the Missouri river, destroys organic impurities arrising from sewage much more rapidly than an ordinary current, and instead of requiring a flow of a greater distance, requires a flow of a much shorter distance to destroy such impurities.

Fifth—That the water of all wells not more than two blocks outside the area drained by the sewers is either grossly impure or of questionable purity, and should not be used without adopting some method of purification.

Tabulated list of well water, under chlorine. The city water is taken as unity.

Specimen.	Chlorine.	Ox. Org. Mat.	Ammonia (free)	Nitrites.	Nitrates.	Remarks.	
1	½	pres't.	trace	none	none	good	Fr. sh't Home mine.
2	ter	trace	none	none	none	good	
3	9	m'rk'd	pres't.	none	trace	not good	
4	7	pres't.	pres't.	none	trace	not good	
5	6	pres't.	trace	none	trace	not good	
6	8	pres't.	p es't.	pres't.	none	bad	
7	24	pres't.	pres't.	none	trace	bad	Probably contaminated with vegetable organic matter.
8	10	pres't.	pres't.	none	m'rk'd	bad	
9	11	pres't.	trace	d'btful	none	not good	
10	4	m'rk'd	trace	none	none	q'stion'ble	
11	6	pres't.	trace	m'rk'd	none	bad	
12	18	pres't.	pres't.	none	pres't	bad	
13	10	pres't.	pres't.	none	pres't.	bad	
14	12	pres't.	pres't.	none	none	bad	
15	7	pres't.	trace	none	none	q'stion'ble	

"I FIND that the action of Ponca Compound is very favorable for inflammation of the cervix uteri and for irritation of the ovaries. "E. BRINKERHOFF, M. D.,
"Bristolville, Ohio."

Erysipelas.

Read before the Lyons County Medical Society, September 2, 1890.

BY DR. L. D. JACOBS, A. M., M. D.

[Reported for the KANSAS MEDICAL JOURNAL.]

The subject which has been assigned to me is not a new one; it is old and its history runs cœval with the history of medicine.

Erysipelas was well recognized and accurately described by Hypocrates in all its forms—cutaneous and phlegmonous, traumatic and idiopathic.

Its general characteristics are so well marked that in all ages it has been recognized locally and described.

But it was reserved for modern medicine to mark out its peculiar nature, its contagion, its association with puerperal fever and other septicæmias, and for the medicine of our own day to point out its prevention.

Erysipelas is defined by Stille as "an acute, specific and contagious fever, tending usually towards a typhoid type, and characterized by a peculiar inflammation of the skin or mucous membranes."

Its specific cause is a poison, probably due to the presence of certain micro-organisms, which is introduced into the blood.

The poison may be communicated directly by the affected subject, or it may be carried in clothing or other material—especially on instruments of the surgeon and fingers of the accouchers.

The disease is associated with the filth diseases, and its virus, as in that class of diseases, may under favorable circumstances, be generated in the decompositions of organic wastes; hence it is frequently communicated by escaping gases, from leaking sewers, &c.

For its introduction into the system it seems to require a solution of the continuity of some surface—a pimple, an abrasion, an ulcer, or wound slight or great—at all events such subjects are specially susceptible to the contagion whilst others are nearly exempt.

It is in the light of these facts that the conscientious physician dreads to meet with a case of erysipelas. It may be simple and trivial in its type, yet the moment he touches it he becomes a source of danger, possibly of death, to others who look upon him, and trust him for relief and health in their distress.

The connection of erysipelas with puerperal fever is so well established and recognized that I need not refer to the literature, but to emphasize what I have said, I will only quote the following cases from Dr. Dutcher (quoted from the International Encyclopedia of Surgery:)

"A physician while attending a case of phlegmonous erysipelas was called to a case of confinement. The patient died of puerperal fever. In the course of four weeks he attended seven cases of labor, and in every instance

the mother died of puerperal fever, while the children perished with general cutaneous erysipelas. Finally, the physician was himself attacked with erysipelas of the hand, which nearly proved fatal."

I will relate a case of my own: In 1872 I attended a man, who still resides in our city, for facial erysipelas. During the time of my attendance I was called to a case of confinement. The lady was a primipara. Labor progressed satisfactorily, and terminated naturally. On the third day after labor the patient was siezed with rigors, which were followed by vomiting and fever. The abdomen soon became painful and trympanitic, typhoid condition, attended with muttering delirium followed, and on the sixth day of her fever she died.

My patient was nursed during her illness principally by two ladies, who were her neighbors and friends. One of these ladies, in a few weeks afterwards, miscarried. She was about three months gone. I did not see her until the day after the miscarriage. At this time she was suffering with chilliness. Fever and pain in the abdomen followed. For a long time her case was almost hopeless, and it was about six months before she recovered, so as to go out. In this case there was marked peri-uterine cellulitis and the tissues were indurated for many months after convalescence had been established.

The other lady was confined about six weeks later, at full term, and in several days was also seized with chills, vomiting, fever and abdominal pain, from which, however, in several weeks she recovered.

I have no doubt but that this death, and these severe and prolonged cases of puerperal fever were all the result of my case of facial erysipelas.

As a matter of interest in this connection, I will relate several other cases that have fallen within the line of my experience.

In the fall of 1888, I was called to see a case of puerperal fever in consultation with Dr. Hibben. The woman had been confined several weeks before, and in several days after my first visit she died. A Mrs. R. was employed as her nurse during the last two weeks of her sickness. During the month of the following December, I attended Mrs. J. in confinement. I had attended Mrs. J. in several confinements before, and she always recovered nicely. Her labor at this time was easy and natural. Mrs. R. was her nurse. Several days after labor she was seized with chill, followed by high fever and abdominal pain. She was seriously ill for several weeks. At my last visit, which was during convalescence, my attention was called to the nurse, Mrs. R, who was suffering from a painful inflammation of the leg. The inflammation had extended from the foot to the knee, and was now subsiding and the cuticle exfoliating.

Two months after this I attended Mrs. Mc. On account of unavoidable delay, I did not get to my patient until labor was over. The child was born, and the after-birth was in the bed. I had attended Mrs. Mc. in previous confinements and she always did well.

When I returned next day, I found my patient doing well, but to my dismay, I found Mrs. R. in attendance as nurse. I also learned that she had slept with my patient during the night. I told the husband that his wife had been exposed to infection, and that he must expect a puerperal fever. On the third day, my patient was siezed with rigors, fever, abdominal pain, &c., and during the next six days, her condition was most precarious. She gradually, however, recovered.

On January 6, 1889, I was called to see Mrs. M. residing about four miles in the country. She was threatened with abortion. To my great surprise I learned that her husband had died a few days before. He had been sick but a short time. An inflammation, supervening upon a small sore of his lip had set in. It extended to his face, his mouth and throat, and he rapidly sank and died. I prescribed for my patient, returned next day, found her nervous, probably on account of shock from loss of her husband. but labor pains had ceased. The next day she was apparently well. February 3, I was again sent for. I found her in high fever and delirious, with frequent pulse, painful abdomen, and tympanitis. I learned that she had miscarried three days before, and that, the fœtus and secundines had came away naturally, that on yesterday she was seized with chill and fever. Her con-

dition was grave in the extreme. Four days afterwards she died.

Medical literature is full of clinical proof of the contagiousness of erysipelas. To refer to it is unnecessary. I will, however, be excused for quoting a striking illustration related by Trousseau: "A gentleman received a gunshot wound of the foot, followed by gangrenous and fatal erysipelas; his brother, who nursed him, was attacked with erysipelas of the scalp, which ended in his death on the eighth day; his daughter, a child of three years, had a slight burn of the hand which became erysipelatous; the family laundress was affected with erysipelas of the right hand; the sick-nurse had erysipelas of the face and head; and a sister of charity, charged with the duty of irrigating the wounded foot, had a phlegmonous abscess of the right arm followed by several in other parts of the body, which sloughed, and finally caused the woman's death. Meanwhile however, she returned to her convent, where a number of sisters were similarly affected, and two of them died."

In my own practice I have always used the most scrupulous care in approaching a case of injury, but particularly so after having been in contact with a case of erysipelas. In my hospital practice I have always isolated the cases of erysipelas, and never allowed the nurse in charge of such cases to attend other surgical cases; and yet I am not without clinical experience of its contagiousness, as the following cases will demonstrate, and which are the result of a failure to recognize the disease on the admission of the patient:

November 6, 1884, Charles Olsen was admitted to St. Mary's Hospital. He was affected with an inflammation of the throat and palate, attended with high fever. The glands of the neck soon became involved aad greatly enlarged. The mucous membrane of the throat was of livid redness, the palate tumefied and deglutition difficult. In a few days the neck and lateral portions of the face became red and swollen. Suppuration of the palate (which I lanced) followed, also suppuration of some of the cervical glands. The case was severe and remarkably slow in recovering. I was not able to discharge him until December 27.

In the same ward, at the time of admission of this patient, there were three surgical cases viz: C. H. Hicks, admitted October 23, middle finger amputated October 23, and in every particular doing well; C. O. Lark, admitted October 23, end of little finger mashed, doing well; and J. B. Eshenbough, admitted November 3, contusion and laceration of finger, not serious. November 11, Eshenbough, (reported) inflammation, hand and arm erysipelas. November 11th Hicks' hand highly inflamed. November 16 lanced abscesses in both cases. At the same time Lark's hand was swollen and inflamed.

The cases were tedious in their recovery. Lark was discharged December 23, Esenbaugh December 27, and Hicks December 31. During all this time I was attending surgical cases in other wards, and, also, outside of the hospital, none of which however became affected with erysipelas.

In evidence of sewage contamination being causatively associated with erysipelas, I quote the following: "In Middlesex Hospital, London, it was observed that the only patients with erysipelas in a certain ward were those who occupied two adjacent beds. After long searching for the cause of this peculiarity, it was discovered that the pipe of a water closet which ran behind the plaster of the wall at this place, was defective. It was repaired and no more cases of erysipelas occurred at that time. But ten years later, the same beds became unhealthy with erysipelas, and the same remedy put an end to the disease."

Erysipelas, as I have said, is due to a specific poison introduced into the system from without. The poison may act (*a*) at the point of infection, that is produce immediate local manifestation; or (*b*) it may be absorbed into the system, and first effect the glands in proximity to the point of infection (the wound)—this is probably by multiplication of micro-organisms; or (*c*) it may first solely affect the constitution, that is we have, at first, great and general constitutional disturbances, and subsequently—sometimes not for several days—the local inflammation.

In epidemics of this disease, probably the throat is the point of infection. Epidemics of erysipelas have been numerous. The society is familiar with the great epidemic that pre-

vailed in our country, principally in New York, and the western and north-western States from 1843 to 1847, under the name of *black-tongue*.

Certain conditions of the constitution, particularly depravity induced by intemperance, syphilis insanitary surroundings, &c., predispose to the disease.

SYMPTOMS.

For the purpose of description, erysipelas has usually been represented under three principal forms, styled according to their characteristic manifestations, respectively, *simple or cutaneous*, *cellulo-cutaneous* and *cellulæ* or by some authors, the last two forms have been placed under the head of phlegmonous, and this in its most sloughing and necrotic variety has been called *phagadenic* and *malignant*.

It will hardly be appropriate in me to attempt an accurate description of these several varieties; and, yet, for the purpose of refreshing our minds as to the symptoms, I cannot avoid delineating, crudely it must be, some of their most prominent features.

The disease under all forms is usually ushered in, frequently for quite a time, by constitutional disturbances; usually slight or severe, according to the mildness or severity of the attack. These with lassitude rigor, headache, muscular pains, gastric disturbance, followed by fever. The temperature is often very high. If the attack is the cutaneous variety, a red area now appears—if traumatic, at the seat of the wound, which now has become dry, and its edges red and somewhat swollen. In the so-called idiopathic variety, the side of the nose is frequently the place of beginning. The rash is of a rosy red hue, but sometimes more dusky. It disappears on pressure, but immediately returns. It advances by a well defined border which is raised above the healthy skin. Its advance is usually somewhat irregular, that is, shooting out farther at some point than others, but usually in one general direction—if on the face, the direction is towards the scalp, if on the extremity, it is towards the trunk. The affected skin is usually more or less œdematous, and generally markedly so where the connective tissues is abundant; in the face, the eyes are swollen shut, and the features greatly and characteristically distorted.

It is attended with a stiff, itching and burning sensation; vessels or bullæ often form, which first contain clear and afterward, turbid serum, and finally dry, forming slight incrustations. The lymphatic glands, in the vicinity, are usually tender and enlarged. When it declines, the skin usually becomes more swollen, and, then, normal, the line of demarcation having first faded away. The cuticle usually desquamates, and always, of course, does where vesicles existed.

The constitutional disturbances in a few days disappear, the fever subsides, and convalesence is established; the course is usually from six to ten days. Sometimes abscesses form, but they are not serious. Some persons are prone to repeated attacks and sometimes relapses take place.

The following is an interesting and unusually severe case of cutaneous erysipelas:

James D. Coleman, aged about 35, of apparently good constitution; a machinist at Florence, Kansas, was admitted to St. Mary's Hospital March 3, 1886. His face was red and inflamed, stiff, tender and burning; his fever was high, pulse frequent, and there was headache and nausea. The rash gradually advanced, and soon his ears and post-temporal regions became involved. Vesicles appeared on his face, and his eyes were closed from swelling. In a few days his scalp became involved, but in a few days more the inflammation subsided and convalescence was soon established. He was discharged March 17, two weeks from date of his admission.

On May 19, two months afterwards, he came to my office to consult me with reference to his condition. He said that for several days he had been having chilly sensations and a general muscular aching, that he had flashes of fever, that his appetite had failed, and that there was a soreness of the glands of his neck.

On looking at him I discovered the already appearance of an inflammatory rash on his face. I immediately took him to the hospital. The disease proceeded as before, all over his face to his ears, his scalp; blebs formed on his cheeks, his temperature was high, his pulse frequent; at times he was delirious, particularly at night.

The disease slowly advanced, notwithstanding my best efforts to check it. On the face it declined, but only slowly; but it advanced to the neck, to the shoulders, and down the back and chest to the hips.

I had assured him that in ten or twelve days he would be convalescent, but at the expiration of that time the disease was still advancing. I became alarmed; his fever was high, his pulse frequent, with diminishing volume, and it seemed to me that the disease, by its extensiveness, must exhaust him. I had used the best supporting constitutional treatment; I had exhausted every reasonable local means within my power—iodine, sulphite of soda, sulphate of iron, boracic acid, solution of carbolic acid, solution of bichloride of mercury, tincture of lobelia, starch, bismuth, oxide of zinc ointment, simple and carbolized cosmoline, but all to no avail. My last local remedy was lime water and linseed oil, which seemed to yield some comfort. I used this freely, at the same time covering the surface with absorbent cotton. Finally, when the disease got down to the hips and over the buttocks it stopped its march of invasion. That was in about twenty-four days from the time of beginning. Many bullas had appeared on the surface, and there was general desquamation.

On tonics and nutritious diet my patient slowly recovered, and was discharged from the hospital June 1, forty-two days from the time of his admission.

In the phlegmonous variety of erysipelas, the disease affects the skin and cellular tissue.

When it affects principally, or almost entirely the cellular tissue, it is called *cellular erysipelas*, and it is often described under the title of *diffused cellulitis*. This variety is almost invariably associated with wounds that involve both the skin and areolar tissue. The intensity of the inflammation is so great that it almost always, if left to itself, terminates in diffused suppuration and sloughing. Its appearance is preceded by the constitutional symptoms already described, but usually of a much more severe and grave character. Its local manifestation is by redness, heat, pain and swelling. The redness is of a scarlet and purpleish hue, but not so uniform, nor with such a well-defined border of demarcation as in the cutaneous variety. The pain is burning and throbbing. The swelling is diffused, and soon becomes tense and hard. Blebs usually appear. After this condition has continued for five or six days, the inflammation may subside and resolution take place. Usually, however, this is not the case, but the skin becomes livid, sometimes dusky, and the parts, instead of being hard and tense, become of a soggy and doughy feel, and impart the sense of semi-fluctuation. The skin at places, especially when blebs exist, excoriates, or the surgeon makes an incision, and from these places is discharged a thin, sanious fetid pus, often mixed with dead connective tissue which has been compared to "wet tow," or "wet chamois leather."

The destruction of connective tissue is often very great, producing extensive cavities beneath the skin and between the muscles. Of course in these conditions there are present the usual constitutional symptoms of septicæmia, such as exhaustive sweats and fever.

One of the worst and most typical cases of this form of erysipelas that ever came within my practice, was that of Samuel G——, aged about 40, a railroad carpenter, admitted to St. Mary's Hospital December 13, 1887. He had been injured in the foot four days before, and had undergone Perigoff's operation, and had now been sent to Emporia. When admitted his fever was high, temperature 105°, pulse frequent, and he was delirious. The heel was in good and close apposition, sutured, and additionally sustained by a strip of adhesive plaster passing over it and extending up the leg posteriorily and anteriorly. The drainage was by a large black, soft-rubber tube, extending entirely through at point of operation. The leg was hot, painful, and largely swollen. At various places over the lower portion blebs had formed. The redness was of a scarlet hue, and pretty distinctly bounded at a point about two-thirds up the leg. I irrigated the wound with solution of bichloride of mercury, 1 to 2000, injecting also through the drainage tube; painted the advancing area and the sound skin immediately beyond with tinct. of iodine, and dressed the leg with carbolized cosmoline spread on lint, having first dusted

the entire surface, also the wound, with iodoform. The disease steadily advanced, and in a few days the limb was enormously enlarged, hard and tense.

I gave up all idea of primary union, of the wound. In fact I believed that the interruption of blood supply, by the extensive œdema and infiltration, would cause the heel to slough entirely, and my principal thought was to save my patient. I therefore removed the sutures and supported the flap (heel) with a bandage. Drainage now would be perfect, and suppuration would find a free outlet. But there was no abatement in the disease. In a few days more the inflammation had traveled beyoud the knee, and the leg had now become less tense and was manifesting the doughy condition. At the blebs the skin had assumed a dark, grayish appearance, indicating sphacelation. There were several large patches of this kind. At these places I incised freely and also at several other places where there was fluctuation. Only a small quantity of sanious pus was discharged; but in a few days pus freely discharged, and masses of so called wet chamois leather came freely away.

From this time on disorganization continued, until the entire cellular tissue of the leg was destroyed. The flow of pus was enormous. A probe could be passed under the skin in any direction, and to any distance. I washed the cavities with carbolized water; made openings and counter-openings; used drainage tubes, and gradually the discharge became less, and as repair went on I shortened the tubes and finally removed them. In the meantime, as the leg became more natural repair took place in the wound, and, by supporting the heel-ball, a good and neat looking recovery ensued. This was, of course, after a long time. The man was discharged April 10, 1888, four months after admission.

I will add that this man had a syphilitic history, and, of course, in addition to ordinary treatment, I gave him mercurials and iodide of potassium.

I have pointed out only the principal features of erysipelas, which is all I can do in a paper of this kind.

As to prognosis, I have little to say. The cutaneous variety nearly always recovers, and is only grave when it is very extensive, or in extremely debilitated subjects. The phlegmonous is always serious, and may prove fatal from the ensuing septicæmia, and from the exhaustion consequent upon sloughing and suppuration. Recovery is often tedious, and frequently much impairment remains to the usefulness of a limb having been affected.

Treatment.—Erysipelas being a contagious and infectious disease, our attention, in the consideration of its treatment is, at first, directed to prophylaxis.

An accurate knowledge of the prevention of contagious and infectious diseases, is one of the great triumphs of the medicine of our times. It is the result of chemical, microscopical and bacteriological investigation, together with the most scrutinizing clinical observation; and the physician of to-day who is not appreciative of this knowledge is unworthy of his profession. Think of the Philadelphia physician who had ninety-five cases of puerperal peritonitis in rapid succession, while none were occurring in the practice of his neighboring practitioners! Or, if you please, of the numerous lying-in hospitals where, at times, it might appropriately have been inscribed upon the door of their entrance, she who enters here must leave hope behind!

In the practice of our profession he should always insist upon sanitary conditions—pure air, pure water, sunshine and wholesome surroundings. But in the treatment of surgical and puerperal cases we should do more. We should require cleanliness, in the absolute sense of the term, and the most rigid enforcement of antiseptic precautions.

The patient with erysipelas should be isolated from all persons who have wounds; the dressings that have been used should be burned; towels, handkerchiefs, sheets, &c., should be kept separate and disinfected, as in other similarly contagious diseases. No conscientious physician would willingly go directly from a case of erysipelas to an obstetrical case to dress a wound. Should, however, emergency compel him to do so he should, first, change his clothing and thoroughly disinfect his hands.

In the curative treatment of erysipelas innumerable remedies have been vaunted, and

in the light of the intelligence of to-day, probably not a single one has had the slightest beneficial effect outside of a general and palliative way.

Locally—cold effusions and hot fomentations; powders, as lycapodium, starch, flour, oxide of zinc, bismuth, iodoform, &c., solution of zinc, acetate of lead, sulphate of iron, iron and glycerine, turpentine, camphor, hyposulphite of soda, boracic acid, bromine, carbolic acid, salicylate of soda, bichloride of mercury.

Ointments—as mercurial, oxide of zinc, cosmoline, cream, collodion, nitrate of silver, tincture of iodine, hypodermic injections of carbolic acid. Internally—emetics, cathartics, quinine, salicylate of soda, tincture of iron—in large and small doses—alcohol, turpentine. ammonia; these and many other remedies have alike had their advocates and their denunciators.

The truth is there is no specific remedy. The disease is self-limited, and its treatment must be conducted on general principles. It must be remembered that its tendency is to a typhoid condition, and that in the phlegmonous form, its usual result is in suppuration and cellular destruction.

In the simple, cutaneous form it is merely necessary to guide the patient through the attack. When there are no special indications of feebleness a mild aperient, with a bland nutritious diet, such as milk and beef tea, with beef peptonized, is all that is necessary. If, on the other hand, there is feebleness, tonics are indicated—quinine and tincture of iron; and when the patient convalesces, iron, quinine and strychnine will be a good tonic. The diet should be nutritious. Locally, the most soothing and protecting applications should be made, such as starch, and the parts covered with a layer of cotton. I have usually found simple cosmoline to be an excellent application. I have been in the habit, in the beginning, of painting the affected part, and the parts immediately beyond, with tincture of iodine. I cannot say that it does any good, but its moral effect is beneficial. The patient feels that you are doing something to destroy, or, at least, prevent the spread of the disease, and is, consequently, pleased with the procedure. In the extensive inflammation in the case of Coleman, which I recited, lime water and linseed oil (coron oil) on cotton afforded the greatest relief.

The phlegmonous form must be treated on general surgical principles. The patient must be placed in bed and the parts kept quiet; if a limb it must be well and comfortably supported. I am in the habit of treating these cases with applications of iodine, and warm lead water and laudanum fomentations. Frequently I cover the part with lint wet with lead water and laudanum, and apply over this flannels wrung out of hot water. I sometimes use slippery-elm poultices, with, I believe, good advantage in subduing the inflammation. Sometimes when I could not handle the limb well, I have used only cosmoline on lint.

Of course, in these cases, the attendant wound is treated antiseptically, and antiseptic ablutions are made frequently to the affected parts.

When the œdematous tension is very great, small but numerous incisions are recommended to be made into the subcutaneous areolar tissue, and the parts then to be treated with emolient antiseptic fomentations. When the so-called bogginess occurs, or fluctuation exists, free incision must be performed so as to give vent to the pus and sloughs, and the cavities should be injected with carbolized water 1 to 40, or bichloride solution 1 to 2000. Drainage tubes must be inserted as required, and counter openings made when necessary. Finally when repair commences, the drainage tubes must gradually be shortened, and the limb be gently supported by a bandage.

The constitutional treatment must be conducted on the same general principles. At the onset, when the pulse is strong and the fever high, quinine may be given in antipyretic doses, and the bowels moved with saline cathartics; also anodynes should be given if there is much pain.

But the asthenic tendencies of the disease must be kept in mind, and a tonic and supporting plan of treatment must be early adopted. Tincture of iron in ten or fifteen-drop doses with two grains of quinine, every three hours is a good treatment. Milk and broths, with beef peptonoids should be given. As the powers become feebler brandy and car-

bonate of ammonia are indicated. Turpentine is said to be an excellent stimulant in low typhoid conditions.

When convalescence approaches, iron, quinine and strychnia is a good tonic. The diet should be nutritious and generous.

The subject, as I said in the beginning, is old, but it is none the less interesting and important.

In all the departments of medicine, to the general practitioner, the surgeon, the accoucheur and the specialist, the presence of erysipelas is always fraught with gravest responsibility. Nor can we expect to see the time when the disease shall cease to exist.

In conclusion allow me to say, there are few diseases to which, as a society, we can give an hours consideration with greater advantage than erysipelas.

DISCUSSION.

Dr. T. C. Biddle said he had not had a large experience in erysipelas; had one unique case in a child five months old. The disease began on the hip, extended to the shoulder and arm, then appeared in the opposite hand and passed up the arm and over body and abdomen; down one leg, then up on the well foot and over chest, but did not reach the face. The disease was of the cutaneous variety. In the future, careful practitioners will see less of this disease. In Bellevue hospital, where James R. Wood performed so many brilliant operations, followed by death from erysipelas, there is at the present time hardly a case.

Dr. Longenecker said he had not had a great deal of experience with this disease. Most of his cases were of the cutaneous variety, and yielded kindly to iron, quinine, iodine, &c. Had one case that gave evidence that this disease might disappear without treatment. A man fifty years old, while suffering with a carbuncle, was moving from Iowa to Kansas—he took cold and erysipelas set in. Found him with erysipelatous eruption over back of neck and scalp; pulse quick, temperature high, severe pain in head with some delirium. He refused to take medicine, and persisted in this course for two weeks. Thought he would die; finally he began to improve, which ended in complete recovery. During his convalescence his wife told him how sick he had been, adding that his constitution saved him. He replied: Constitution! old lady it was sand.

Dr. Page regarded the paper as a good one, and that it covered the ground admirably. He was very skeptical regarding any medicine controlling the disease. Had a peculiar case, showing the relation between erysipelas and puerperal fever—young mother, took chill followed by fever and profuse sweating; temperature 103° to 105°; remedies seemed to modify the fever somewhat, but she continued sick for four weeks. Her babe, which she was nursing during this time was taken with erysipelas, acting much like the case described by Dr. T. C. Biddle, and ending in death The mother made a slow but complete recovery and has borne several children since. Dr. Fordyce Barker calls these kind of attacks "puerperal malarial fever." Dr. Page thought there was a relation existing between facial erysipelas and diphtheria.

Dr. Roup said he had a case of erysipelas resulting from the bite of a hog on the knee. The inflammation beginning in the knee extended to the body. The wound was treated with cold water at first, afterwards antiseptically by use of bichloride solution 1 to 2000, and by incisions, the part being dressed with carbolized gauze. Internally he administered iron, quinine and whisky. After the lapse of five months the patient recovered, with an anchylosed knee-joint. This condition of the joint could have been prevented if the patient had employed passive motion as directed.

Dr. Webster said that while listening to the essay the query came to him, is erysipelas a constitutional disease, with local manifestations, or a local disease with constitutional manifestations? He presented the case of a lady who had a pimple on her cheek, pricked it, and erysipelas set in, spreading to the scalp. Her temperature at one time reached 106°, and he regarded her condition critical. He applied locally a solution of grs. iv. nitrate of silver to ℥ i. water; and to reduce temperature gave antipyrin. The case made a prompt recovery. He also had a case of a young man who, having a sore on his lip, pricked it, from which an erysipelatous inflammation began, extending to nostrils and

cheeks. The marked feature of this case was the high temperature, at no time less than 103°, and at one time 106½°. This patient survived but a short time.

Dr. Gardner said we had heard a good paper on a subject that interested all physicians. He had little faith in medical treatment to limit the disease. He had tried fluid extract of ergot locally in one mild case, with apparently good results. In answer to Dr. Webster's query, he would say that as the constitutional symptoms were out of all proportion to the lesion, he regarded the disease as constitutional, but that the infection might start in any abrasion.

Dr. Foncannon said he was greatly interested in the paper, and thought the society had passed two hours very profitably. He regarded erysipelas as a constitutional disease. It might be local in its origin. Both diphtheria and erysipelas were undoubtedly constitutional diseases. He did not believe any woman had puerperal fever from erysipelas. The puerperal woman is not a hopper where any kind of germ or septic material can be thrown in and come out puerperal fever. These cases are erysipelas of the womb. He said he had had some success in the treatment of the disease under consideration, by the local use of campho-phenique. The first application causes pain, but soon gives so much relief that patients ask for it.

A Lecture.

Delivered at the Opening of the Kansas Medical College, at Topeka, Kansas.

BY W. L. SCHENCK, M. D., TOPEKA, KAN.,
PROFESSOR OF PATHOLOGY AND PREVENTIVE MEDICINE.

Young Gentlemen and Ladies:—We have met to discuss some of the great problems of health and life—life, without which we are not—health, without which life is scarce worth living.

Though, I believe, without pre-arrangement, it is fitting that this first lecture in the Kansas Medical College should fall to the chair of Preventive Medicine and Pathology—the preservation of health through the prevention of disease, and the expressions of disease. Health and its preservation will be the thought of every department in the college; and here, at the threshold, "with charity towards all and malice towards none," let us prophecy for this college a long and useful life.

As an art hygiene goes back to the origin of the race. As a science it is of comparatively recent origin. On some questions its practice was more correct in earlier ages than since it has been guided by the hand of science. Thus, its first recorded edict was "multiply and replenish"—the reproductive act for the purpose of reproduction, and the Jewish lawgiver gave many important hygienic laws for the government of the people in camp and city, and the world will never outgrow the summary of duties recorded in the decalogue: Love Him who is best; honor Him who is highest; honor father, mother—those in authority. Give fixed portions of your time to spiritual retrospection and introspection. Respect the rights of others and do not covet ought that is theirs. Here are the broad foundations upon which stand all hygiene, all religion, binding us back to Him that is highest—to all that is best. The conception of the perfect man with Moses grew out of his conception of Jehovah. Be ye perfect—physically, spiritually, morally, was his thought, and so it must be ours. Man is triune. While the trend is ever onward there have been great recurrent waves. The Greek emphasized intellectual culture and refinement, while the Roman, with contempt for his effeminacy, sought physical perfection—the athlete and the soldier, developed, disciplined, courageous. Then alas! came the monastic idea, crucifying the flesh, scorning the life that now is, stifling inquiry, manacling reason, and inaugurating a narrow asceticism unknown to Jew or Pagan.

Before men awakened from this indifference to health, this contempt for life, petty tyrants, protected by their castle walls, with castle floors foul with the remnants of their feasts and the dregs from their tankards, and surrounded by moats filled with a fluid mass of decaying vegetable and animal matter, too often living by plunder and murder, ruled the world. The Jew was killed as a dog, and crusades in which thousands perished in a day

of hunger, fatigue and exposure, were marched against the Moslem. Lands were uncultivated and swamps undrained, while famine, rapine, lust, and every form of vice reigned triumphant. What wonder that the great plagues of the dark ages devastated the whole earth! It seemed as though the centuries, bent on destroying all the improvements, and burying all the wisdom and knowledge of preceding ages, never would emerge from the degradation into which they had fallen. And when at last the lowest depths had been sounded, and the world began to seek the light, persecution, the inquisition, and the field of battle sought to hold it back, but the spell had been broken, man had awakened from the sleep of centuries, the value of life was recognized, the mind was enlightened and the soul uplifted. The yoke of the tyrant, whose will was the supreme law, was trampled beneath the feet of freemen, and the right of man to "life, liberty, and the pursuit of happiness," was established. To-day the preservation of life, and all that makes life valuable, are recognized by most civilized nations as among the grandest objects of government, and the application of hygienic laws are beginning to show wonderful results. Thus, three decades ago the death rate in England was 20 per 1,000, two decades ago 18 per 1,000, and during the last decade reduced to 12.50 per 1,000, while in her colonial army it has been reduced from 30 to 10.7 per 1,000.

Whilst protection against disease and death demands governmental control over those ignorant and heedless of the rights of others and their own best interests, government must come from the people. They must be enlightened, taught to think, discuss, decide, act, govern for the best interests of all.

A religion without charity is "sounding brass aud a tinkling cymbal," so a government that is not for the people is a snare and a fraud, sordid, selfish, degrading debasing. In America, while her institutions proclaim equal rights and protection to every citizen, there is a tendency to selfishness and greed. Monster corporations are permitted to grasp all the grain, all the coal, all the transportation, all the necessaries of life while thousands are left in penury and want, their health, happiness and prosperity wholly disregarded. In health there is ever a recurrent wave. Disease engendered in the slums of a city cannot be excluded from its aristocratic quarters. It is borne upon every breeze, and may enter every home, and in republican governments there is a continual upheaval of society, bringing the bottom to the top, and very often carrying the top to the bottom. We must remember that God's providence is over all, that His idea of government is protection to all. While England has done much for sanitary protection, she expects America to lead. Thus that most distinguished physician, Dr. B. W. Richardson, wrote to the International Congress at Washington: "The sanitarian must either wait for the statesman or become a statesman. In this country the affairs of state block the way to affairs of health. With Americans I hope it is differently ordained. If so they will soon be ahead of their mother country in relation to all that national health which is the only true national wealth."

To-day the thought of the sanitarian embraces that of the Jew, the Greek and the Roman. Soul, and mind, and body, are but parts of a great whole. Protection and development must be provided for all. So long as they are united their reciprocal influence never ceases, and it is difficult to emphasize the hygienic importance of either, though probably the moral element is most frequently disregarded. I do not mean that kind of morality that would poison with your cesspool the air your neighbor breathes, or pollute with your sewage the stream from which he drinks, though that is akin to what I mean, and will be considered hereafter. I mean the reciprocal hygienic influences of body, mind and soul. While the spiritual man is confined to earth it acts largely through the instrumentality of the body, and is strongly impressed by the character of the instrument through which it acts, yet it has power to attune it to its purpose. Whilst gross sensual appetites and passions often drown the scruples of conscience and the dictates of reason, if the will asserts its power their dominion is recognized, and that which was created to be the instrument of an immortal tenant ceases to be master. Carnal appetites and desires, that are

capable of destroying the body and debasing mind and soul, yielding obedience to the spiritual powers within, are made ministers of health and strength to body, mind and soul. Hygiene, to evolve the grandest results, must not only surround the body with all the conditions that tend to the development of health, but must impel its spiritual occupant to so control every appetite and passion that it may be a fit instrument for the work of the God who dwells within.

As all departments of medical science are important it is difficult to emphasize any one. All are so intimately connected, so interwoven, that each is a part of the other. You cannot divide the body into tissues, organs and territories, and consider them independent parts. "The eye cannot say to the hand I have no need of thee." While the nervous system directs and controls the glandular, vascular and muscular systems, the glandular prepares and depurates material for the vascular, the vascular supplies all parts with necessary nutriment, which the muscular enables it to obtain and distribute. The body is like human society, where "no man liveth unto himself and no man dieth unto himself."

Anatomy, physiology and pathology, practice, surgery, obstetrics and hygiene are all woven into each other. While to the sick and suffering practical medicine, surgery or obstetrics, may seem the great desideratum. Hygiene, physiology, etiology, symptomatology and pathology, anatomy and chemistry, materia medica and therapeutics, supply the knowledge without which they are nothing.

The physician may be master of both the art and science of medicine, and by his success extort eulogies from his patients; but is it not because health is deemed better than disease? If then we were to emphasize, we would say that department of science which enables us to preserve health is more important than that through which, perchance, disease is cured and health restored. Next in importance to knowing how health may be preserved—the preventable causes of disease and the means of their removal, is to understand the changes they produce in physiological action and anatomical structure. Preventive medicine and pathology, to which we will invite your attention, are the peers of any department in medical science. But both involve not only an accurate knowledge of anatomy, chemistry, physiology, etiology and therapeutics, but as well vital statistics—the conditions, location, movement and results of disease. If you do not know where disease exists, how will you know where to apply preventive measures? If you do not know its conditions — the sources from whence it springs, and its mode of developement and communication, how will you institute preventive measures? If you do not know its expressions and results, how can you comprehend the importance of action? To protect life you must not only understand the laws of life but the influences and results of all its surroundings. Preventive medicine then involves a knowledge of the means by which disease may be prevented and health preserved, and of their application. But as the causes of disease often originate in locations over which you have no control, and are carried from neighborhood to neighborhood, state to state, and nation to nation, prevention involves *state medicine*, or legal authority to go where the causes are found, take action for their removal and against their exportation and importation, whether in original packages or otherwise. As disease and death are not only a calamity to the individual, but involve the strength and prosperity physically, intellectually and morally, of the nation, the enlightened statesman, understanding the function of law to be the protection and development of the people, individually and collectively, and recognizing the importance of legal enactments for the prevention of disease and the preservation of life and health, provides the necessary legal enactments, and institutes legal or state medicine.

Preventive medicine involves the knowledge and application of such measures as are necessary to preserve health. Legal or state medicine the authority to make such application.

Health involves the harmonious development and action of the whole man, and is his normal condition, yet it is constantly assailed from the cradle to the grave. Mal-development, mal-nutrition, under-exercise, over-ex-

ercise and faulty exercise, viscious habits, noxious surroundings—innumerable causes crowd the pathway of life, and everywhere, through preventable disease, death reaps his harvest in childhood, youth and manhood, rarely finding opportunity to wield his scythe where the grain is fully ripe. Yet faith points us to the day when health will be the rule, when preventive medicine and surgery will well nigh cover the field of medical science, and when the years of man shall be "three score and ten, and if by reason of strength four score."

We do not mean to intimate that the obstetric art will become absolutely obsolete, for while through obedience to God's other commands health will be preserved, men and women will scarce forget that primal ordinance—"*multiply and replenish.*" But while obeying for the purpose of attaining, rather than avoiding its consummation, fully developed women, with healthy nerves, and hearts, and lungs, with good digestion, with all their organs and functions normal, and freed from the various surroundings that tend to disease, will have little use for the obstetric art. Dr. Slop, laying aside his bag and squirt, will have no occasion to quote an objurgation on the tier of knots, while the absence of the more complicated armamentarium of the modern obstetrician may relieve him from repeating it against himself.

It is needless to say that this happy day lies before you, and must be achieved through your efforts. Though "anticipation forward points the view," you must not on that account neglect any department of the noble science of medicine. There must be born a generation of legislators who will comprehend and labor for all that is best, and who will give to those competent to use it authority to apply preventive medicine. A new generation of theologians, who will teach that "virtue brings its own reward," that "sin wrongs the soul," that "whatsoever you sow that also shall you reap," that whatever may occur in the world to come no "presto change" will alter the laws that govern this world; that physical and spiritual laws obeyed will secure healthful and harmonious development of soul and body; disobeyed, physical, mental and moral disease, and death. A new generation of doctors must be born whose highest ambition will be to preserve health—to confer the greatest good upon the greatest number—the whole people.

Widely separated as the divisions of this department may seem, they are yet a unit. To understand deviations from health, and the methods of their prevention we must comprehend healthy structures and healthy functions. Pathological conditions are only physiological diversions. To know the importance of the deviations from health we must know the magnitude of their results. To understand their causes and their means of prevention or removal, we must comprehend the deviations.

In our investigations we may legitimately begin at the top or the bottom, with the fully developed organism and the study of its various parts; or with the single, simple cell, with which all life and development begins, and follow step by step its normal changes, that we may comprehend those that are abnormal, and the methods of their prevention. We believe the latter course most natural and satisfactory. By understanding how nerves, glands, muscles, bones, and the various parts of the body are developed we shall be able to comprehend the complex structures they form, deviations in form and function, the causes that produce them and the methods of prevention. But when we seek to begin at the beginning, we find the beginning eludes our search. And like the author of the Pentateuch we are compelled to say "in the beginning"—where the star-dust came from, out of which the worlds were made, Moses did not know; or whence the breath of life wherewith the Creator vitalized the clod. He gathered together the one. He breathed into man the other. What life was e'er organized matter existed we know not, and as little do we know what life will be when organized matter moulders back to clay. Through the kindly instrumentality of the vitalized matter in which for a time it dwells we recognize spiritual growth, and as well the possibilities of yet greater growth. As infinite wisdom could not design that any creation of His should be cut down e'er it reached its grandest possibilities, "it doth not yet appear what it shall be."

We do not even know what life is; nay, we do not even know what matter is. Doubtless you have known, and will always know, people "wiser in their own conceit than ten men who can give a reason." But the truly wise man often finds problems of which in his wisdom he says *I don't know*. It doth not yet appear. Acknowledge the limitations of knowledge, but labor to extend its boundaries.

If we do not know what life is, what matter is, we do not know how they are united.

A cell of the pollen, born in a tassel of maize, falling upon the silk as it peers through the husk, is carried to a germ cell within the ovary, and there is generated a grain of corn, capable of reproducing its kind indefinitely. But who shall explain the fecundating force? The secret is yet hidden in the heart of nature. Within the ovary of the female animal there are at definite periods secreted, perfected and excreted microscopic cells incapable of proliferation, and of limited vitality. Yet one of these cells coming in contact, under favorable circumstances, with an allied cell, secreted by the reproductive tissues of a male of the same species, becomes an embryonic cell, and is endowed with power, if the life is higher than an amœba, to proliferate other cells, and as we ascend in the scale of being to differentiate all the varied cells that constitute the perfect animal, the differentiated cells thenceforth possessing power to proliferate "each after its kind." Thus all life begins with a cell; each cell possesses a life of its own; and hence all living bodies more complex than a single cell are *a sum of vital unities*. Whether the thought of Darwin, in its entirety, that the cells from which spring the highest orders of creation were built up from lower, and yet lower forms of life, is true or false; it is certainly true, and not less wonderful, that from a simple microscopic cell, composed of a nucleus, and neucleoli, protoplasm, and a cell membrane, springs the complex and complicated structures of the highest forms of animal life.

How germ life and sperm life, when bound in one, create a perpetual life endowment, proliferating and differentiating millions of cells of widely differing types, each possessing an individual life, but all bound in one, working harmoniously for the development of the individual and the perpetuation of the species, are mysterious as yet beyond our grasp. We only know the law, "*omne vivum de cellulo*,"—all life from a cell. As far as we know life begins in a microscopic cell, and involves periods of growth, maturity, decay and death. In man the cycle fills four score years, but alas! how rarely is the cycle completed? From the impress of parental depravity on the germ or sperm cell—inheritance, and various surroundings, that science should remove, half his years are lost.

And here, at the beginning, the function of preventive medicine commences. You have all heard of hereditary disease. Disease is never hereditary. The microscopic cell, germ or sperm, may be diseased, and the disease may end in its death, but specific disease cannot remain latent for half a lifetime and then develop; but there are latent tendencies to the developement of special types of cells and tissues that readily succumb to certain malign influences, to cell degenerations, and to the development of neoplastic growths.

Every individual life has its inherited idiosyncrasies that tend to the development of particular forms and features, and types of tissues. When these tend to disease, deformity or malignant growths, the question arises what can be done to prevent or arrest these ever descending types of immature tissues?

Domestic animals are bred to perpetuate the desired types, and to prevent the deterioration incident to domestication.

Society, with a thousand influences more potent for evil than the domestication of animals, continually generates degenerations, which, but for the wonderful adaptations of the human species, would long ago have destroyed the race. The thought of nature with all life is the perfection and perpetuation of species. Intelligent life should surround itself, not simply for its own sake, but for the sake of the generations that spring from it, with influences that tend to the fullness of life. Possibly, you or I, in the interest of science or humanity, have a right to injure or destroy ourselves, but has any man or woman a civil or moral right to impose upon unborn generations physical, mental or moral disabilities?

Few men, few women, have sufficient self-denial to live celibiates for the benefit of future generations; and quite as few will consent to educate their loves, which are too often only lusts, to select companions who will add strength to the coming generation. Marriage is too sacred a relation to be contracted without serious consideration. However strong the parents, the peace, joy, love, that adorn the happy home, tend to the development of health and strength. Homes that are hells degrade and debase physically, intellectually and morally, all who enter them If the frequency of divorce did not sufficiently emphasize the unfitness of many marriages, when you grow to full fledged doctors you will find the emphasis.

The surroundings that antedate procreation and the early home make the problem of the improvement of the race one of difficult solution. But our hour draws to a close. Our next lecture will be the hygiene of marriage, infancy and childhood.

Ergot in Obstetric Practice—Its Use and Abuse.

Read before the Kansas City Academy of Medicine October 11, 1890.

BY EDWIN B. SHAW, KANSAS CITY, MO.

Mr. President, and Fellows of the Kansas City Academy of Medicine:

On a subject that is so old I could not hope to bring anything new before this intelligent body of earnest and enthusiastic physicians, but the thought occurred to me that the pendulum of professional opinion had already swung to an extreme, and a drug which, when properly used, is capable of so much good, was liable to be entirely discarded by the younger men in our profession, simply because so much harm had been ascribed to its reckless use and abuse. It has already become popular to denounce the use of ergot in obstetric practice, largely, I think, on purely theoretical grounds. Like every other agent that is potent, alike for good and evil, its physiological action, and the indications for its use, should be most carefully considered in every case. It is well known that an agent whose action is beneficial in one stage in a disease, may be contra-indicated in another stage of the same disease. Yet we do not condemn the use of the remedy, but only advise that its action, together with the patient's condition, be carefully considered before administering the drug. The same rule ought to apply to the remedy under consideration. That it was formerly used too lavishly and recklessly, and that great harm to mother and child resulted none will question; but, may I not ask, are we not going to the other extreme, and adding an element of danger to the cases under our care, by refusing to make use of a remedy that is capable of great good? In the language of the landlord in Silas Warner: "And so, I'm for holding with both sides; for, as I say, the truth lies between 'em."

There is a difference of opinion among the best authorities as to the proper time to administer ergot. Some advocate the giving of it just as the head is about to escape over the perineum, so as to secure its action at about the time of the delivery of the placenta, then by guarding against *post-partum* hemorrhage. Others are very decided in the opinion that ergot should never be given till the womb has been emptied of all of its contents, on the ground that imprisonment of the placenta is liable to occur, owing to the production of tetanic contraction and closure of the os.

In a large obstetric experience, extending over a period of eight years, it has been my routine practice to give a teaspoonful of Squibb's fluid extract of ergot when the head was distending the perineum, and the labor promised to be terminated in a few minutes, with the object in view of securing firm and persistent contraction, and retraction of uterine muscular fibre, thereby furnishing my patients the best possible safeguard against *post-partum* hemorrhage. By contraction and retraction of uterine muscular fibre nature closes the mouths of the uterine vessels, as some writer has said, with thousands of living ligatures; and as ergot assists in the performance of the act, which nature often does imperfectly, or wholly fails to do, owing to a relaxed, flabby, exhausted or worn-out condi-

tion, the practice of giving the drug is certainly logical and scientific. In other words, ergot prevents hemorrhage in nature's way.

It has been my good fortune never to have had a case of *post-partum* hemorrhage; and I attribute this result almost entirely to the use of ergot, for the reason that in no inconsiderable number of my cases there has been a history of flooding in previous confinements.

After the expulsion of the placenta, if the uterus still remains relaxed and flabby, a second, or even a third dose, should be administered, because it should ever be borne in mind that in such a condition the patient is in imminent danger of *post-partum* hemorrhage. For the encouragement of the obstetrician the converse should be remembered, that *a well contracted womb cannot bleed.*

The danger of *post-partum* hemorrhage is so far in excess of any untoward effect of ergot used as indicated, such as imprisonment of the placenta, that the objections to its use cannot be sustained. Indeed, the placenta ought to be delivered in every case at about the time the action of the ergot begins. This can always be accomplished, except in those rare cases when the placenta is retained by inflammatory adhesions. In such cases, it must be admitted, that the ergot would prejudice its removal by causing tetanic contraction, thereby rendering the introduction of the hand difficult if not dangerous.

Ergot stands alone, and without a rival, as a prophylactic against *post-partum* hemorrhage. It is the remedy *par excellence*, for the prevention of so dire a disaster. Indeed, in a case where a history of flooding occurring in previous confinement has been obtained, the obstetrician failing to use the ergot just before or immediately after the birth of the child, and should *post-partum* hemorrhage take place, I would hold guilty of mal-practice. In such a case it would be advisable to give a second dose immediately after the expulsion of the placenta, *even if the womb promptly contracts*, for in this condition an ounce of prevention is worth many pounds of cure.

In reply to the argument that labor is a normal, physiological act, and therefore ought not to be interfered with until nature has demonstrated her incompetency, I would quote the following very pointed remarks from an article, *The American System of Obstetrics*, by Samuel C. Busey, M. D., as being applicable to the question at issue: "Child-bearing is a natural process; but in civilized life, more especially in the higher walks of society, the female organism but rarely performs its duties satisfactorily without intelligent assistance. Meddlesome interference often commits mistakes, and blind expectancy omits many opportunities to promote the progress of the process, and to mitigate the sufferings of the patient."

The good effects of ergot do not cease with the prophylactic power, against *post-partum* hemorrhage, although that alone would be sufficient justification for its use; but it also probably promotes the process of involution by contraction and retraction of uterine muscular fibre by contraction of the arterioles, thereby diminishing blood supply, and consequently favoring fatty degeneration. By preventing the formation of clots it lessens after-pain, and in that way adds greatly to the comfort of the patient. It guards in one way, at least, against septic complications. Excellent obstetricians have observed that women recover more rapidly after confinement when ergot has been administered than otherwise.

On account of the slow action of ergot it is mere folly to give it after the expulsion of the placenta as a prophylactic against *post-partum* hemorrhage. I wish to say, and I hope with becoming modesty, that unless given at the proper time, viz., just before or immediately after the birth of the child, it might as well be entirely omitted, unless, perchance, it be administered hypodermically.

I will be pardoned for again quoting from Dr. Busey's excellent article; it so aptly and pointedly expresses my own convictions: "As soon as the head is delivered and the neck liberated from the coiled funis, if the cord be around the neck, or not later that immediately after the delivery of the placenta, a drachm of the fluid extract of ergot, diluted with water, should be administered. The routine administration of ergot at this stage of labor is approved and practiced by many, if not a majority, of the most experienced and successful obstetricians, because it secures

firm and persistent contraction of the uterus, lessens the danger of *post-partum* hemorrhage, protects, in some measure, the patient from septic complications, and promotes involution, whilst the danger, if any, of producing hour-glass contraction of the uterus, are too remote for consideration."

That ergot, when given after the expulsion of the placenta, by causing tetanic contraction of the uterus, may be followed by a loss of contractile power and consequent hemorrhage, as Prof. Johnson of this city affirms, seems to the writer more fanciful than real. That such a condition might obtain from large, and needlessly often repeated doses, I would not doubt, but not from its judicious use.

Ergot should never be used in the first stage of labor, because of its power to produce persistent contractions without inducing dilitation of the os; because it wears out the contractile force and exhausts the strength of the mother; it interferes with the oxygenation of the blood, thereby inducing asphyxia, and finally death of the fœtus.

It should not be used in the second stage, if the maternal parts are rigid, for the reason that it will favor and induce rupture of the cervix and perineum.

No thoughtful practitioner would ever use it in a case of retained placenta.

I would summarize my views of ergot in obstetric practice briefly as follows:

1. It stands without a rival as a prophylactic against *post-partum* hemorrhage.

2. It acts as a hemostatic in nature's way, and is both safe and reliable.

3. It should be given just before or immediately after the birth of the head, so as to obtain its action when needed—soon after the emptying of the uterine contents.

4. That it promotes the process of involution, is rationally explained by the fact that it produces contraction and retraction of uterine muscular fibre, and contraction of the arterioles, thereby favoring fatty degeneration by diminishing blood-supply.

5. It diminishes and prevents after-pains, adding greatly to the comfort of the patient.

6. It lessens, in some way, the danger of septic complications.

7. It shortens the stage of convalescence.

8. Obstetricians of large experience, such as Goodell and Parvin, of Philadelphia; and Busey of Washington, testify that they have never observed any bad results from the judicious use of ergot.

"The more complete and permanent the contractions, the greater the safety and comfort of the patient, for when the organ remains in a state of partial relaxation, coagula are apt to be retained in its cavity, while, for the same reason, air enters more readily into it. Hence decomposition is favored, and the chances of septic absorption are much increased; while, even when this does not occur, the muscular fibres are excited to contract, and severe after-pains are produced."—*Playfair's System of Midwifery*, 3d edition, pages 543-4.

Acute Œdematous Uvulitis—with Case.

BY HAL FOSTER, M. D., KANSAS CITY, MO.
LARYNGOLOGIST TO ALL SAINTS AND MISSOURI PACIFIC RAILROAD HOSPITAL.

Authors in writing of acute œdema uvulæ, or acute uvulitis, affirm or infer that the œdema is caused by or associated with cold, and that the pharynx and tonsils will show a sympathy of congestion somewhat proportionate to that actually present within the uvula. Mackenzie of London, says: "Some cases where the pharynx is inflamed the violence of the morbid action appears to be extended on the uvula."

Sajous speaks only of relaxed throat and uvula which may be caused by chronic catarrhal inflammation. Heath, of œdematous uvula due to inflammation and commonly found in any acute inflammation of the throat.

Ingals in his book does not mention the subject. Browne, of London, in his recent edition, writes to the point. He says: "The uvula becomes suddenly red, swollen and infiltrated, with comparatively little hyperæmia of the neighboring parts." Bosworth notes that œdema uvulæ sometimes occurs during the progress of acute or chronic sore throat, and the organ may acquire the size of a large bean, or even that of a plum, and will provoke spasms of impending asphyxia.

The case seems to be a unique one, and a striking exception to the doctrine laid down by most of the authors consulted.

Mr. M., a lawyer, aged 30, was on the morning of September 10, in perfect health and had never been treated for throat trouble. In the afternoon, which was clear and balmy, he experienced no symptoms of cold or catching cold. Later in the same evening his throat began gradually and steadily to fill up, and within four or five hours spasms of suffocation attacked him. The patient described it as though his tonsils had fallen and were movable in the throat. He could not swallow anything solid, and liquids only with great difficulty. He had no fever, his tongue was moderately coated, and his daily regulations of life were and had been good.

He had eaten a rather heavy dinner about 8 o'clock, and had smoked and drank, but not to excess. It was not until twelve at night that his throat commenced to feel uncomfortable, although for several hours previous he had experienced frequent and annoying eructations. Early the next morning he came to my office, asking to be seen immediately. Inspection by aid of strong reflected light revealed a limited, but intense palatine congestion, and an enormous œdematous uvula. The tonsils, palatine folds, and pharynx were not hyperæmic, and the patient complained of no pain on pressure externally against the tonsils, nor were they at all prominent to the touch. The uvula was fully the size of the thumb in thickness, and on inspiration and expiration would flap back and forth, sometimes lying as a great pendulous mass on the tongue, and then, on forcible inspiration, dropping deep in the fauces, setting up a succession of paroxismal coughs.

With the aid of dressing forceps, I grasped the swollen uvula in expiration at its most pendulous portion, and made a number of stabs with the bistoury; but finding only little bleeding I used a large needle, held firmly within the needle-holder, thrusting the point many times deep into the tissues. The oozing of blood and serum was so little, and the swelling had diminished to such a slight degree that after waiting some fifteen or twenty minutes more, I determined to try the effect of a strong solution of cocaine. I therefore painted the whole uvula with a fifteen per cent. solution, and made another application within ten minutes. The enlargement now commenced immediately to disappear, and was reduced considerably before patient left the office, he expressing himself as feeling freer and more comfortable about the throat.

I ordered a dose of Rochell's salts, a gargle of tannin, aconite and rose water; to use no warm drinks, and to take little or no food, and that of liquid character. The same day, six hours after, the patient returned to my office, expressed himself better, and on inspection I found the swelling had subsided fully one-half. Re-applied the solution of cocaine and continued liquid diet.

Next day the uvula was almost normal in size; throat perfectly comfortable; patient discharged cured.

I was led to the trial, on this affection, of cocaine, knowing full well its power of readily reducing the turgescence of the mucous membrane in acute affection of the nasal passage. Its use in acute œdematous uvulitis is rapid and lasting. To explain this rapid and localized œdema, and equally rapid and permanent disappearance, I believe we must look to the vaso-motor as being at fault. The uvula is in direct communication with the stomach, through the sympathetic system. Michael Foster says, there can be no doubt that the sympathetic branches contain filaments capable of modifying the calibre of blood vessels. We can trace the mucous origin by many routes; one among them is through the descending palatine branches into Meckels ganglion, thence to the sympathetic root, on to the carotid and gastric plexus. But the most direct and easily explainable route is by the afferent branches of the pneumogastric, joining with the filaments to the superior cervical ganglion, branches from which ganglion, joining a plexus on the external carotid artery, are distributed to the ramification of this artery. I regard this case as an illustration of a phenomena acting reflexly through the sympathetic system, localized in its manifestation and operating from the stomach, a function not foreign to the sympathetic when we remember the important influence which the

sympathetic plays upon nutrition, calorification and secretion. The rapid course which this disease ran shows, first, how the stomach may reflexly and acutely act upon the upper air-passage; second, that by giving rest to the stomach and causing a depletion, local and general, we effected a termination of this disease as hastily as it was acutely manifested.

Congenital and Zonular Cataract.

Read before the Republican Valley and Sixth District Medical Societies.

BY GRANT CULLIMORE, M. D., ATCHISON, KAS.

Cataract, as you know, gentlemen, is the name applied to opacity of the lens, or of its capsule.

As it is proposed in this paper to treat only of *Zonular and Congenital Cataract*, I will not discuss the symptoms of cataract in general, but only dictate those lines which the practitioner in general medicine may "read as he runs."

The eyes, the windows of the newly born baby's little soul, are watched very closely by an anxious mother, and also by all the ladies of the neighborhood, and the doctor's attention is very soon called to any doubt as to the baby's vision. This doubt may be expressed very early in the infant's life, and then great care must be exercised on the part of the physician to determine if congenital cataract exists.

By reflected light there may be found in the axis of the lens an opaque nucleus, with possibly a few knobs or rays in its edge, and inspection with the light placed obliquely will determine this opacity to be in the middle substance of the lens.

Most often in this variety of cataract, the opacity is well defined, and appears like a greyish nucleus inclosed in a transparent medium. This is a laminated, or zonular cataract. It is congenital, and is one of the most common varieties of strictly congenital cataract. Parents are often surprised when told that this condition exists, and that it is the source of blindness, for it frequently fails to be noticed by the naked eye.

While I have said that this form of cataract is congenital, I must hasten to modify the statement and say, that as far as we know it is in *most cases* congenital. It certainly appears first in early childhood.

These zonular, or lamellar cataracts in children have a tendency to remain stationary for a long time, and the lifetime of the patient may pass comparatively free from defective vision. Under such circumstances there is really no demand for operative interference.

That this affection is not very rare I have only to appeal to the experiences of every practitioner present, each one of whom, no doubt has, in the circle of his practice, at least one baby who is blind from this cause, or some grown up person born blind, or blind from very early infancy.

An important symptom to which attention should be called in congenital cataract, is the symptom of nystagmus. If the vision of the child is very imperfect the infant does not learn to fix its eyes upon objects, and they acquire rolling rotatory movements. This is termed *nystagmus*; and here it is in place to emphasize the importance of early performance of the required operation before this motion becomes a fixed habit.

The retina, after a successful operation, is educated in the recognition of objects, otherwise if the operation is delayed, even though finally successful, the result will not be so satisfactory on account of the confirmed habit of rotating the eyes, and permanent deficiency of perceptive faculty of the retina.

Another form of congenital cataract, which is even more common than the zonular, is that which is characterized by a greyish, cloudy nucleus, with the outer layers of the lens substance marked by a more diffuse opacity. This nuclear opacity has a disposition to increase until the whole lens becomes bluish white, like milk diluted with water. This variety of cataract often comes to maturity slowly, and the opacity sometimes does not occasion complaint until adult life; still this form of congenital cataract is rarely stationery for a great while, and it generally requires an operation to bring about absorption of the lens if it is still soft, or removal by incision if it has become hard.

As to the etiology of these two varieties of congenital cataract, it seems that heredity exerts a great influence, for sometimes we find several children of the same family similarly affected. And I remember in my own experience seeing a father, a son and a daughter, all blind from this same cause. These were under treatment while another child of the same family remained at home, blind also from the same affection.

Rachitis has been regarded by some as a predisposing cause and I am inclined to believe that scrofulous and rachitic families are apt to be the ones in which hereditary congenital cataract exists.

It is a fact mentioned in works on general practice, that zonular cataract often follows convulsions in children. I know this to be true, and it is a fact that every practitioner should recognize.

I was called but recently to the office of a physician, and asked to examine a baby some months' old which had recently and suddenly become blind. The first question asked was, "Has the child had convulsions?"

Answer, "Yes."

It was as evident to me then what the condition was as if the ophthalmoscopic mirror had been used, although my colleague had diagnosed "atrophy of the choroid." I used the ophthalmoscopic mirror, however, and found milk-white lenses—undoubted cataract associated with convulsions.

The *treatment* of zonular and congenital cataract is confined almost exclusively to operative procedures. When the opacity is non-progressive, and the patient has arrived at a more adult age, dilitation of the pupil by atropine may furnish more vision, but the inconvenience and dangers from continuous atropinization are objectionable. Iridectomy also presents itself as a possible and feasible procedure.

But we are more interested in the treatment of these cataracts in infant life and in early childhood, and the operation then to be considered is that which will bring about absorption of the lens, or separation of its atrophied fibres.

This is the discission or needle operation. When the lens substance is soft simple discission suffices. This consists in lacerating the anterior capsule and breaking up the laminæ of the opaque lens, thus allowing the aquæous humor to come into immediate contact with the fibres of the lens. The latter then becomes more opaque and swollen, and the process of absortion and solution now begins to take place. The instrument best adapted for this purpose is a knife-needle, and the point of entrance 2 to 3 m. m. from the outer extremity of the horizontal diameter of the cornea. Repeated needling may be necessary.

The simple opening of the lens capsule is not sufficient in those cases where the lens substance is atrophied, and the tissue membranous and fibre-like. The discission with two needles must then be made. Two needles are passed through the cornea near the point before indicated, and their points approximated at the lens. The handles are then brought together, the cornea being used as a fulcrum. The points will thus separate and tear away the membranous lens and its capsule, thereby leaving a way open for the transmission of light to the optic nerve.

Authorities differ as to the age advisable for the first operations on these cataracts. Good authorities and practical experience teaches that the earlier in the child's life the better. The younger the patient the less liability is there to be severe inflammation after the operation, and the necessity for early training of the retina should be again emphasized. I have operated successfully at the ages of three and six months.

By the early recognition and proper treatment of these congenital defects, the number of inmates of our blind asylums will in the future be lessened.

We call the atttention of our readers to the advertisement of Messrs. R. A. Robinson & Co., Louisville, Ky., which will be found on another page of this issue. This firm was established forty-five years ago, and enjoys a wide-spread reputation as a sound, honest, reliable business house. We do not hesitate to endorse their preparations as being all they claim for them.

Insanity as a Symptom of "Bright's Disease."

ADDRESS IN MENTAL DISORDERS.

Extract from the Proceedings of the Medical Society of the State of Pennsylvania, June 10, 1890.

BY ALICE BENNETT, M. D., PH. D., OF NORRISTOWN, PA.

(Continued.)

Case 5. ——, aged thirty-three, Irish, single, domestic, good family and personal history. One week before admission suddenly became wildly delirious; no previous symptoms noted. On admission she was excited, incoherent, and in constant motion of some sort. Urine loaded with granular and waxy casts. Lived nine days; delirium passed into semi-comatose condition for the last two days of life. Autopsy: Kidneys contracted, capsule adherent, cortex thin, cystic, and fatty. Some thickening of heart valves, and numerous atheromatous patches in coats of arteries of the brain.

Case 6. ——, aged twenty-six, American, single; one paternal cousin insane; general health had been considered good, but slight failure of memory and a tendency to repeat words had been noticed for two years. Onset of insanity sudden, twelve days before admission, shown by incessant talking of delusions of a persecutory nature, insomnia and restlessness. On admission condition as described above; after one week passed into a condition of semi-coma which lasted a month, and she died in the seventh week of the attack. The urine contained a small amount of albumin, hyaline, epithelial, and granular casts. There was a mitral systolic murmur of the heart. Ten days before death the urine contained a considerable amount of surgar, although none had been found at two previous examinations. In the last week showed a tendency to convulsive twitchings of all the voluntary muscles; superficial sores readily followed slight irritations of the skin. Autopsy showed contracted and granular kidneys. Heart hypertrophied, with mitral leak.

Case 7. —— aged thirty-eight, married, mother of five children. Invasion of insanity sudden, of one week's duration; lived eight days, after admission to the hospital, in a condition of restless delirium with rapid loss of flesh. Autopsy showed kidneys contracted and fatty; heart hypertrophied and dilated.

Case 8. ——, aged forty-five, of Irish parentage. Dyspepsia for two years, somewhat depressed for four months; melancholia, with restlessness and delusions, for one week before admission to the hospital. Special delusions were that there was "a roaring lion inside her body; at another time a "man," etc. Continuously restless; died eighteen days from the beginning of the attack. No autopsy. Urine contained albumin; no casts found.

Case 9. ——, aged twenty-six, Pennsylvania German, single, domestic; left service six weeks before through ill-health, but there were no mental symptoms until two weeks before admission to the hospital, when she suddenly became deranged, screaming "The people are burning up!" Refused food and lost flesh rapidly. Died six days after admission, three weeks from the onset of mental symptoms. The urine contained albumin and many granular casts. The autopsy showed the kidneys much contracted, cortex granular and cystic.

Case 10. ——, aged thirty, American, married, good family history. Had suffered from dyspepsia but was considered fairly well up to eight weeks before admission to the hospital. Insanity characterized by apprehensions of disaster, suicidal attempts, and great restlessness. Lived twenty-five days. No autopsy. Urine contained hyaline and granular casts.

Case 11. ——, aged thirty-seven, American, widow, mother of five children. Had been running down in health for four months with some mental depression, but no obvious insanity until ten days before death, which was probably hastened by the fatigue of the journey to the hospital. She died after two days, during which she manifested great restlessness and mental distress, with apprehensions of injury. The urine contained albumin and granular casts. The autopsy showed kidneys granular and contracted, with a large cicatrix on the posterior surface of the left; heart very pale, flabby; insufficient valves.

Case 12. ——, aged forty-seven, American, widow. Sudden development of insanity; melancholia, with great restlessness, fear, screaming, etc., followed by death in twenty days. Urine contained granular casts. No autopsy. This case was complicated by swelling of both parotid glands a few days before death.

Second Group.—Cases (12) less rapidly fatal (three months to nine and one-half years.)

Case 13. ——, aged fifty-nine, married, mother of two children; one maternal cousin insane. Melancholy for about two months before admission, with a remission of about one month during which she seemed well; prominent mental features were delusions concerning her own body, apprehensions of injury and hallucinations of sight; at first very restless but soon became quiet and markedly resistive; never stuporous but seldom spoke; expression watchful, suspicious, and despairing; often required mechanical feeding; at times seemed to suffer great pain, which, on two occasions, appeared to be relieved by the passing of a large quantity of bloody urine. Emaciation was rapid and extreme. The urine contained albumin, hyaline, and epithelial casts. Death occurred in the seventh week of her residence with us, the fifteenth from the beginning of insanity.

Case 14. ——, aged thirty-two, American, married, mother of one child eight years old. Melancholy for nine months before admission; died six months later, fifteen from the beginning of insanity. No autopsy.

This case was characterized by extreme melancholy and strong suicidal impulses always active; generally silent with most agonized, despairing expression, but had periods when she would utter piercing screams and throw herself about the floor for hours; often fed with tube because she refused food. There were several slight convulsive seizures just before death.

Case 15. ——, aged fifty, American, widow; no family history of insanity. Something more than a year before admission to the hospital became the subject of restless melancholia, followed by a gradual failure of intellect. On admission, bewildered and frightened air; comprehension feeble; spoke few words in disjointed, childish manner; appetite inordinate; habits unclean; destructive of clothing and other property; resistive to a marked degree, the most ordinary measures for her comfort requiring four to six nurses. Urine contained albumin (small amount), hyaline and fatty casts. This patient lived a year in the condition described above, more than two years from the beginning of the attack. No autopsy.

Case 16. ——, aged fifty, Irish, single; had been complaining of minor ailments for two years. Six weeks before admission became suddenly melancholy, with active delusions of persecutions; suicidal; refused food and lost flesh rapidly. Died in the eighth month. Became very much emaciated; frequent abscesses followed superficial injuries; during a remission of three months was almost well, quiet, and sensible, but with this exception, was always restless, disorderly, and an exceedingly troublesome patient to care for. Urine contained albumin, no casts noted. Autopsy: Kidneys contracted, capsules adherent, cortex very thin and containing some cysts; pelvis dilated and injected; heart valves thickened and atheromatous; atheroma of cerebral vessels.

Case 17. ——, aged forty, Irish, single, domestic; mother insane at menopause; second attack (first attack, due to "ill health" eighteen years before). One year before admission awoke suddenly in the night with the delusion that her room-mate was going to kill her. Lived seven months (nineteen from the beginning), always in a condition of exaggerated fear and apprehension. Gradual physical deterioration with development of tuberculosis. No record of urine. Autopsy: Kidneys contracted, cortex very much thinned. Fatty degeneration of heart, with thickening of valves. Lungs tuberculous, with almost total destruction of the right; two pints of purulent fluid in the right pleural sac.

Case 18. ——, aged thirty-seven, American, married, and mother of five children; patient said to have been a chronic sufferer from "indigestion, liver and kidney troubles." Mental symptoms of four months's duration; a gradual development of melancholia with tendency to stupor. On admission, urine con-

tained hyaline casts with granular epithelium. Mind and body failed together and she died in four and one-half months, eight and one-half months from the beginning. Pulmonary tuberculosis developed in the later stages. Autopsy: Granular, contracted kidneys; tuberculosis of lungs; mitral stenosis of heart.

Case 19. ——. aged past fifty, married, no children, Irish; a niece insane. Had been considered fairly well up to about two months before admission, when she began to worry about trifles and developed hallucinations of sight and hearing; attempted suicide by cutting abdomen with a razor because she was "tired of herself." On admission, the urine contained hyaline casts; tendency to obesity, with flabby flesh and sluggish circulation; heart-sounds feeble. This patient seemed more hypochondriacal than truly melancholy; her attention could generally be diverted and at times she was even cheerful. Her suicidal intentions were not much credited until one month after her admission to the hospital, she managed to secrete a table-knife and cut her own throat almost "from ear to ear," half severing the trachea, but no important vessels. This was followed by an amelioration of the mental symptoms. The wound kept in healthy condition and had healed to within one and a half inches (small opening into the trachea remained) at the time of her death, which was two months from the time of her admission, four from the beginning of her insanity. She was constantly threatened with heart-failure, and her death, occurring very suddenly, was evidently due to that cause. Autopsy: Kidneys a little swollen in appearance; capsule not adherent; cortex thin, friable, and of yellowish color, containing some cysts; pelves dilated and injected. Heart flabby and fatty, valves thickened and atheromatous. Liver large and fatty. Right lung contained, in posterior part of lower lobe, a gangrenous area, two by three inches, circumscribed by inflammatory adhesions of the adjacent pleura. Brain not examined.

Case 20. ——, aged seventy-two, American, married; two brothers committed suicide. Suicidal melancholia of six months' duration; had a similar attack three years before from which she apparently recovered. Lived two months, eight from beginning of last attack. No autopsy. Urine contained waxy and granular casts.

Case 21. ——, aged twenty-four, American, single, domestic; was "running down" in health for an indefinite time. Melancholia of restless type; rapid decline with development of tuberculosis. Urine contained a small amount of albumin. Died in four months. Autopsy: Granular, contracted kidneys; tuberculosis of lungs; mitral stenosis of heart; fatty liver.

Case 22. ——, aged sixty-six, American, widow. Melancholy for one year before admission, and committed suicide by hanging herself two months later. Urine contained albumin and hyaline casts. There was a mitral systolic murmur of the heart. No autopsy.

Case 23. ——, aged sixty, Pennsylvania German, widow. Whole duration nine and one-half years. Restless melancholia with keenest apprehensions constantly present. In the early stages would look out of the window and scream "The sky is coming down!" "We shall all be burned up" in an agony of fear. Terminated in partial dementia of melancholic type, with extreme emaciation. Autopsy: Kidneys, cortex almost entirely destroyed by fatty change. Heart, atheroma and thickening of valves; calculus in gall-bladder.

Case 24. ——, aged sixty-five, American, widow, one daughter whose mental capacity seemed below the average. Two weeks before admission arose in the night and tried to set fire to the house. Condition that of restless melancholia of rather quiet type. Lived six and one-half years; without remissions; tendency to dementia slight. Autopsy: Kidneys, contracted with extensive destruction of cortex. Heart-valves thickened. Lungs tuberculous.

"DURING my stay in America I used Tongaline wherever indicated with such excellent results, that I desire to learn if the preparation can be obtained in this country.

"OTTO FRISONI, M. D.,
"St. Louis."

Read the new advertisements in this issue of the JOURNAL.

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TOPEKA, KANSAS, DECEMBER, 1890.

Quinine in Pregnancy.

The statement goes the rounds of the journals periodically, "that large doses of quinine in the early months of pregnancy is liable to induce miscarriage." This is doubtless true of certain idiosyncrasies. If given indiscriminately and unreasonably it may be true of all. The same may be said of a large number of therapeutic agents given in toxic doses. Not that there is a selective affinity for the uterus by them, but it is due to the nervous shock. The strength of a chain is determined by its weakest link.

In these latter days but few uteri, according to gynæcologists, are normal in structure or function, and the uterus is the weak link of the system. Although designed by nature for the purpose of receiving and developing the embyro, should the uterus be normal, the changed physiological condition present increases the susceptibility of the sympathetic nervous system. The attention of the uterus is absorbed all the while now in adjusting itself to its new relation and making preparation for future greatness. At this time it is off its guard, as it were, and not prepared for surprise by way of fright or violence. According to Gray, "the uterus continues to enlarge up to the sixth month of gestation. This enlargement is particularly due to increased development of pre-existing and new-formed muscular tissue. The round ligaments are enlarged, and the broad ligaments become encroached upon by the uterus, making its way between their laminæ. The mucous membrane becomes more vascular, its mucous follicles and glands enlarged; the rugae and folds in the canal of the cervix become obliterated; the blood and lymphatic vessels, as well as the *nerves* accord to the researches of Dr. Lee, "*greatly enlarged.*" The conditions are present favoring innovation from without and from within. Such as fright and strong mental impressions. Interference with the general system by way of drastic cathartics, emetics or antipyretics and depressents, such as podophyllin, turpeth mineral, antipyrin, or large doses of quinine—or due to a miasm.

The conclusion we come to from reasoning and experience is, that quinine when indicated, and given in corresponding doses to the malignancy of the disease, is no more dangerous than the drugs mentioned, in early pregnancy.

In some of the malarial affections where quinine is given the former is the cause of the accident and not the latter.

What too large a dose would be in malignant malaria would be difficult to state, but enough should be given even in early pregnancy to meet the indications.

GERMAIN SEE recommends large doses of bi-carbonate of soda, forty-five to sixty grains, dissolved in warm water to be given at the time of the greatest acidity of the stomach which is generally two hours after meals. A cousin of ours was in the habit of taking from one to four drachms of the bi-carbonate of soda two and three times a day for ten years for acidity of the stomach. His business required him to live one year, 1882, in Cherokee county, Kas., where he used the alkali water of the country for home use, and a perfect cure was effected within six months which continues to the present time.

DR. BROADBENT, in an address before the

British Medical association, says a mark of a weak medical man, "is the indiscriminate use of stimulants in fevers, a ready resort to narcotics and sedatives, treatment directed to symptoms only and a fondness for new drugs of high sounding name."—*Medical Record.*

DR. DAVID WEBSTER, in a paper on "Foreign Bodies in the Eye," lays stress upon a careful search for them. He reports the case of a lady who visited a reputable physician who had been treating her for more than a week for acute inflammation of the eye. Upon her visiting him and being told he found a foreign body at the sclero corneal junction, she declared it had always been there. The doctor had accepted her statement that it had always been there. This shows how unreliable statements of patients may be, and that we should always carefully examine the eye by daylight and focal illumination, especially when only one eye is affected. If we can find no foreign body then examine the condition of the lachrymal sac and duct, since inflammations of these appendages are a frequent cause of monocular inflammation.

DR. NICHOLAS SENN made a rather amusing error while demonstrating his hydrogen gas test in abdominal injuries before the Berlin congress. A dog was brought in and the delusive tube inserted and gas turned on. Then there was a wait of nearly ten minutes but no gas appeared. Upon closer examination it was found that the tube was introduced into the vagina instead of anus, when the error was corrected.

AMONG the many great improvements which are now being made in the manufacture of physician's instruments and office appliances we are pleased to note something new in the way of an adjustable sofa, manufactured by Clark, Forbes & Co., of Miamisburg, Ohio. This sofa called Nedöfik sofa, certainly comes nearer meeting the requirements of the general practitioner and the specialist who requires an operating chair or table, than any thing we have seen. Its neatness, simplicity, and ease of manipulation are features which certainly recommend it. The ready sale and increasing demand, evidence the approval of the physicians.

Done Likewise.

Dr. R. S. Magee of the firm Minney & Magee, seeing the notice of the taking off of Dr. M. H. Cazier in the last number of the JOURNAL and the advice there given to bachelors to "go and do likewise," did it. The JOURNAL cannot joke even without some fellow acting the joke in earnest. The doctor was most fortunate however in securing a prize worth having in the person of Miss Gertie L. Easter, of Burlingame, Kas. The happy event occurred on Tuesday, November 4, 1890, election day, and the doctor was one of the republicans who was

ELECTED.

Dr. and Mrs. Magee are at home to their friends, No. 713 Monroe street. We know a few more bachelor physicians who would make good women husbands, but seeing how our advice is acted upon we begin to think it is worth something and will wait for a consideration before we repeat it. The congratulations of the JOURNAL are extended to the doctor and wife, and they are referred to Psalm 128, as to *what shall be.*

THE sixteenth annual report of the Cincinnati Sanitarium has been received. It is a good advertisement for a private insane asylum. The writer hereof has had the fortune to send several patients from his private practice to the Kansas asylum at Topeka, and in every case a recovery has ensued. This speaks well for the institution, but the writer also claims some of the credit, from the fact that he sent the cases at the first unmistakable manifestations of insanity, and did not wait for the cases to become incurable before consigning them to the only place where they could receive the proper treatment.

Reprints Received.

"Hypodermic Medication in Diseases of the Eye"—By Charles J. Lundy, A. M., M. D., Professor of disease of the eye, ear and throat in the Detroit College of Medicine.

"Arsenite of Copper, the results of collective investigation"—By John Aulde, M. D., Philadelphia.

LITTLE THINGS.

Dr. C. H. GUIBOR has removed his office to 719 Kansas avenue.

DR. J. M. JENNINGS of Wamego, Kansas, called on us recently.

DR. G. A. WALL occupies rooms in the Stephenson & Peckham building 717 Kansas avenue.

DR. H. FAGAINES of Leoti, Kas., has been a Topeka visitor for some weeks; and has concluded to locate here.

INFLUENZA AGAIN.—Influenza or "La Grippe" is making its appearance in many places both in this country and in Europe.

BLINDNESS, supposed to be hysterical, is prevailing as an epidemic among the factory girls in Wheeling, West Virginia.

THE *Medical Era* says that there are in the world only 13,000 homœpathic physicians, while there are more than 200,000 old-school physicians.

DR. J. C. MCCLINTOCK, professor of surgery in the Kansas Medical College, has withdrawn from the general practice of medicine and devotes his whole time to surgery.

AT a recent meeting of the Medical Society at Mount Vernon, New York, there was a base ball match between the qui-nines of Mount Vernon and the strych-nines of Younkers.—*Baltimore Medical and Surgical Record.*

Dr. J. H. BENEPE of Kingman, Kansas, was a pleasant caller last month. He visited the Kansas Medical College, and expressed himself well pleased. We are always glad to see you, doctor.

THE Colorado State Board of Health has ruled that diplomas of schools not having a compulsory three years' course of not less than five months in each year, will not be accepted after July 1, 1893.

THE London *Lancet* is authority for the statement—that the day is probably not far distant, when persecution, ostracism or censure for difference of opinion in belief, will be regarded as not only immoral but absurd.

A LETTER from Dr. A. B. Freeman informs us that he has removed from Joplin, Mo., to Atlanta, Ga. The South is proverbial for its hospitality, and we hope that the doctor may experience an abundance of the aforesaid article.

COMPLETE anæsthesia should be established before beginning a surgical operation and continued to the end. Letting a patient come out from under the influence sufficient to experience pain in taking the last suture is liable to produce dangerous shock.

A MEMBER of the JOURNAL association having inculcated Republican principles in his family, was surprised at the breakfast table, when reading of a burglary, to hear his youthful offspring say, "Well, papa, I suppose all burglars are Democrats, are they not?"

QUININE IN EARLY PREGNANCY.—Mrs. H., finding herself in an uninteresting condition i.e. pregnant—took fifty-one grains of quinine for the purpose of "bringing on her turns," as she expressed it. Complete cinchonism resulted, but the *little one* remained unhurt.

AMONG our exchanges we see the first number of the *Baltimore Medical and Surgical Record.* In view of the "extenuating circumstances" as given in the salutatory, by the worthy editor, we extend a "highland welcome."

DR. SCHENCK recommends in the treatment of erysipelas drachm doses of Tr. Fer. Chlor. every 6 hours, and every 6 hours 10 drops of saturated solution of bi-sulph. soda, given 3 hours apart, keeping the local expression moistened with a dilute solution of the bi-sulph., always taking care that the bi-sulph is bi-sulph.

THE Academy of Medicine and Surgery of Topeka closed the most successful year of its existence November 4, 1890. Dr. Munn, the President and Dr. Rodgers, the Secretary, are justly entitled to the plaudit, "Well done good and faithful servants." Dr. Munn not caring to serve again was succeeded by Dr. Peers as president. Dr. Rodgers succeeds himself.

DR. W. H. RIGHTER, professor of genito-urinary diseases and dermatology in the Kansas Medical College, is authority for the statement that "prohibition is a prophylaxis against venereal diseases." In other words since the prohibitory liquor law of Kansas went into effect gonorrhœa has become almost

extinct and would cease to exist if it was not for the imported cases.

The above coming from a strong resubmissionist is good temperance literature.

HYPNOTISM. — The Russian government has recently forbidden public *seances* of hypnotism, and the application of it to the treatment of disease is only allowed in the presence of several medical men.—*N. Y. Med. Record.*

AT the Tenth International Congress there were present more than six hundred Americans. When the announcement was made it was greeted with a burst of applause, which, says, A. Jacobi, of New York, "fathered the pride of every American present."

IMPAIRED hearing, the result of chronic catarrh of the middle ear, is greatly improved by the use of a small-sized London hearing horn, which can be concealed in the closed hand, held at the side of the head, and tucked away in the pocket when no longer needed.

AT THE Mississippi Valley Medical Society, Dr. H. N. Mayes of Chicago, spoke of the hypodermic method of administering arsenic as much safer than when given by the mouth. A much larger dose may be given, and continued without causing toxic symptoms, Dr. Hammond having given as much as 50 drops of Fowler's solution as an initial dose. Dr. Mayer has often given arsenic by the mouth until the eyes were suffused and face puffy, and vomiting incessant; then changed to the hypodermic method and with a larger dose, the gastric symptoms quickly subsiding, and the disease under treatment promptly cured.

MEDICINES that irritate the mucous membrane of the stomach and weaken the digestion, besides forming insoluble compounds with the pepsin and acid of the stomach, as bile arsenic, the salicylates, quinine, &c., should be coated with *keratin*, as this is insoluble in the fluids of the stomach, and dissolves readily in the intestinal juices. Those physicians desiring to administer medicines like the above-mentioned, can have pills *keratin* coated by sending formulæ to Reed & Carnrick, Park, Davis & Co., and perhaps any of the manufacturing chemists, and thus be able to give the remedies adapted to cases without the usual unpleasant symptoms so common when given in the usual form.

A Letter.

The November number of the "KANSAS MEDICAL JOURNAL" appears in its usual garb, clean, bright and attractive. Its leading article, by Dr. Daily, on "Aseptic Surgery," is a fitting reflex of the chaste little journal that prints it. Its mechanical construction indicates clean hands and clean instruments. Its subject matter clean, good morals and clear thought. Its reports of numerous societies show a wonderful progress of the profession in the state for the last ten years, and fully justify the demand for a "State Society Journal." As an ex-member of that society I second the motion, and nominate this JOURNAL for the position, with the prediction that before another decade shall have passed away, its growing usefulness and patronage will force it into a conspicuous place among the great metropolitan weeklies of the country.

It is said that in Kansas "the unexpected always happens." "Three double births" in one family abundantly establishes the law of heredity by the "double rule of three," while the two factors "65 (?) years of age," and "ten minutes time," only show how things move when once they get started in Kansas.

In answer to your query, "What is the poison of the bee?" It is one of the many secretions of the *apis melifica*; owes its mischievous potency, (and possibly its medicinal virtues) to "certain pungent salts." It "dries into clear, sharp-pointed, oblong crystals." I have never used it in rheumatism; have had some experience in its action when hypodermically administered by Dr. Bee herself. She is an enthusiastic little practitioner; "sings as she toils;" is a *stickler* for the code; uses a barbed needle, leaves it in the wound, and suffers the death penalty for mal-practice. (See *Encyc. Brit.*)

In closing these notes the writer must record another "coincidence:" Like your Osage City contributor, he is "a bee-keeper" on a small scale, and is also

J. T. SHEPARD.

OSAGE CITY, KANSAS.

WE hear not a little about *elevating the dignity of the profession* nowadays, but it is sel-

dom we see such a practical carrying out of the idea as is described in the *Times and Register* of November 8.

There are many men producing abortions, and prostituting their knowledge of medicine and surgery in other methods under the name of *physicians*, and although conscientious physicians may suspect them, or even be morally convinced of the turpitude of these individuals, very few can afford to, or are willing to go to the expense and trouble of exposing and convicting these pseudo benefactors of the race under the law.

The *Times and Register*, however, have done this very thing. Dr. Eastlake, of their editorial staff, carefully investigated the caseof Dr. Fackenthal of Easton, Pa., charged with procuring an abortion, and besides proving his guilt in the case charged, received assurances from Dr. Falkenthal that he would be willing to undertake another case, and had frequently performed the operation successfully.

By some technical defect Dr. Falkenthal was pronounced "not guilty" of the crime charged, but none the less is Dr. Eastlake entitled to the thanks not only of the profession, but of all Christian communities, for his success in exposing, and his earnest endeavors to secure the conviction of a man who was undoubtedly guilty of a crime all too common in this civilized age, and among the so-called higher classes.

Messrs. Wm. Hood & Co., publishers of medical works, figure in a disgraceful role in a letter from Dr. Wm. Murrell, of London, to the editor of the *Times and Register*. It seems that these publishers have not only pirated the works of foreign authors without consulting them, but have done so in face of the authors' protest. This is taking an unfair advantage of English writers, and as there is no legal redress possible, all that can be done is to expose the wrong-doers, and trust to each physician's innate sense of honesty and fair dealing to rebuke this piracy.

One very direct method of showing displeasure at the action of this firm, is to cease buying their works until they make redress; and this method we propose to employ, and commend it to our readers.

Sharp competition is a good thing for business, stimulating each to put forth his best efforts, but when a man stoops to underhand methods to outstrip his competitors, or to make a little more money, he is immediately compensated by falling in his own estimation, and is more than likely to pay dearly in the long run for any temporary success he may achieve.

Blood Pressure in the Brain.

An apparatus to demonstrate hyperæmia, or anæmia of the brain, is described in a paper read by Dr. William A. Hammond, at a recent meeting of the New York Neurological society, viz:

"It consisted of a brass tube, which was screwed into a round hole made in the skull with a trephine. Both ends of this tube were open, but into the upper was screwed another brass tube, the lower end of which was closed by a piece of very thin sheet of india rubber, and the upper end with a brass cap, into which was fastened a glass tube. This miner arrangement contained colored water, and to the glass tube a scale was affixed. This second brass tube was screwed into the first till the thin rubber pressed upon the duramater and the level of the colored water stood at o, which was the middle of the scale. Now, when the animal went to sleep the liquid fell in the tube, showing that the cerebral pressure had been diminished, an event which could only take place in consequence of a reduction in the quantity of blood circulating in the brain. As soon as the animal awoke the liquid rose. The experiment was performed on dogs and rabbits, and was in every instance the same'"

Death of Dr. Labatut.—Dr. Isadore Labatut, the oldest practitioner in the United States, died at New Orleans on Agust 2, in his ninety-eigth year. He received his education at a French medical college, graduating in 1813. He served in the French army as surgeon in Napoleon's later campaigns, and was present at the battle of Waterloo. Came to New Orleans in 1815, and practiced his profession for sixty years. His health was good to within a few days of his death.—*Weekly Med. Review.*

How Patent Medicine Business is Worked.

These firms of manufactures of proprietary medicines, nine out of ten, live solely by the newspapers and sometimes are admirably managed. I know some establishments in which a regular staff is employed; I know something about them, because they try to bribe me to certify to the value of their concoctions. So I say there is a regular staff. There is the literary man who writes the letters giving marvelous accounts of marvelous cases. There is the artist who shows the patient before and after taking twenty-two bottles of the medicine; there is the poet, who composes poems upon the subject; there is the liar, who swears to what he knows is not true, and the forger, who produces testimonials from his own imagination. Without exaggeration, I should say that nine out of ten of these proprietary medicines are frauds, pure and simple; the real business is advertising for dupes. The medical part of it is a side issue. I am pretty sure, if I were to pound up brick bats and spend $100,000 in offering it at a dollar an ounce, as a sure cure for some disease that cannot be cured, I should get at least $110,000, thus giving me $10,000 for my trouble. Nine-tenths of the medicines sent out in this fashion have no more curative properties than brick bat dust.

CHARLES F. CHANDLER, M. D.
Medical Record.

Medical Society of the Missouri Valley.

The next meeting of the Medical Society of the Missouri Valley will convene at Kansas City, Mo., December 18th, at 10 a. m. An interesting programme is promised. This meeting will be well worth attending. Two hundred and thirty members are now on our rolls and large additions promised at this meeting. The society is destined to become the best in the west. Programme and arrangements regarding transportation will be sent you prior to meeting. Titles of papers must be sent the secretary before November 20, for a place on programme.

F. S. THOMAS, Sec'y.
COUNCIL BLUFFS, IOWA, Nov. 1, 1890.

DR. W. L. SCHENCK, of Osage City, has located in Topeka. His morning office will be No. 7, in 723 Kansas avenue, afternoon at his home office, corner 7th and Brigham avenue. It is not necessary for us to introduce the doctor to the physicians of Topeka or to the State of Kansas or of the United States, for he is probably better known to the profession at large than any other Kansas physician. He has been president of the State Medical Society, and two years ago was first vice president of the American Medical Association, and he is one of three selected to deliver a general address before this society at Washington in 1891. He is also a member of the State Board of Health and Professor of Preventive Medicine and Pathology in the Kansas Medical College, and associate editor of the JOURNAL.

Koch's Method.

The public and professional press are full of Koch's method of treating consumption. Would it not be well to wait until the grass is green over the Bourgeon treatment, before we adopt a new "fad." Koch proposes inoculation. So did Jenner, but he awaited the abundant proof of twenty years before he announced vaccination as the prophylaxis of variola, and his fame will grow brighter through each succeeding century, Koch does not wait for centuries, but prefers the fleeting glory of the passing hour.

Consumption, unlike variola, is due to hereditary or acquired tissue degeneration, which, under certain malign influences tends to excessive cell proliferation and differentiation, to the formation of tubercle, the strangulation of the circulation through cell accumulation and pressure, the consequent death of central cells, their cessation or suppuration.

Will innoculation with this, or any other, diseased matter arrest the tendency to tuberculosis or its development?

Dr. H. B. Callahan one of the oldest physicians in Leavenworth and a decided prohibitionist is a member of the newly organized board of police commissioners of that city.

SOCIETY PROCEEDINGS.

Topeka Academy of Medicine and Surgery.

The regular monthly meeting of the Topeka Academy of Medicine and Surgery was held at Lincoln post hall Tuesday evening, November 4, 1890.

Present, Dr. L. H. Munn, President, and the following members, Drs. Wall, Baily, Lewis, Lindsay, Uhls, McLaughlin, Jones, Bradley, Wentworth, Righter, Minney, W. E. McVey, Ward, Cazier, McClintock, Green, Peers, Pelton, Stewart, Sheldon, McGuire, Alexander, Mitchell, Hogeboom and R. E. McVey. Visitors, Dr. Limmer. Dr. H. W. Morgridge, a graduate of Keokuk medical class of '90 was elected to membership.

This being the annual meeting for the election of officers, the election resulted in Dr. T. W. Peers being chosen for president, Dr. Reid Alexander, vice-president. Drs. D. F. Rodgers and R. E. McVey, were elected to the offices of secretary and treasurer respectively.

Dr. C. C. Bradley reported in writing, a case of "Pistol shot wound of the abdomen, with laparotomy."

Dr. Stewart thought he would not have given so much opium.

Dr. Pelton thought the treatment followed the proper one. Has seen a number of wounds of this character. Related a case of a man being shot in the abdomen four inches to the right of the umbilicus. Saw him in twenty hours and advised an operation; was refused. Patient died and a post mortem showed the ball to have penetrated four loops of the intestine, cut the ureter and lodged in the pelvis.

another case where a policeman was shot in the abdomen, and in five or six days the ball was passed per rectum. The opium treatment was used in this case alone.

Dr. Ward was glad to hear that clear water alone was used in the case.

Dr. Wentworth spoke of the possibility of insanity being an element in the case.

Dr. Bradley in closing spoke of the use of opium in such cases and thought its use proper.

Dr. S. G. Stewart reported in writing a case of rheumatism with chronic complications.

Dr. Lindsay after speaking of the many causes of chorea, rheumatism being one. Said he differed with the writer in the pathology of the disease. Thought the cause in the lenticular capsule. Thinks there is not any constant pathological condition in the brain in chorea; it is more of a functional disease. There are many cases of insanity that follow chorea in early life.

Dr. Wentworth spoke of having received a letter of inquiry as to the factor of rheumatism in choreic cases of insanity. Thought many of these cases had a rheumatic diathesis.

Dr. Pelton thinks chorea generally a functional disease. Has seen chorea in a patient with bronchitis of rheumatic origin. By relieving the bronchitis with alkaline remedies the chorea disappeared.

Dr. Sheldon thinks chorea and rheumatism have a common origin. Thinks chorea hereditary. Has often seen chorea in children of drunkards. Spoke of having seen five cases of chorea in one family, said to have been caused by drunkenness of the grandfather. All the children recovered. Has had good results in the treatment of chorea by means of full doses of blue cohosh.

Dr. Stewart in closing said mal-nutrition of the nerve centers was a cause of chorea. Heredity also a cause. Where there is a hyaline degeneration syphilis is the cause.

Papers for the next meeting by Drs. Lewis and McLaughlin.

Adjourned to meet December 2, 1890, at 8 p. m. D. F. RODGERS, Sec'y.

Leavenworth Medical Society.

At the annual meeting of the Leavenworth Medical society held Monday evening, October 27, the following officers were elected for the ensuing year: L. L. Terwilliger, M. D., of Lansing, President; W. D. Bidwell, M. D., of Leavenworth, Vice-President; W. W. Walter, M. D., of Leavenworth, Secretary and Treasurer.

Dr. Terwilliger read a very practical paper on "Hyperidrosis Pedium, its cause and Treatment," recommending as the most satisfactory remedy, cleansing the feet with warm water, drying them quickly, putting on a pair of

clean socks and thoroughly saturating them with ninety-five per cent. alcohol, relief was obtained by this method when all others failed.

A very interesting and spirited discussion arose as to the policy for the coming year and it was noticeable that far more liberal and enlightened views were held by the members than in previous years.

The society is small and is not encouraged by some of the older members of the profession as it should be, but the loss is rather to the absentees than to the society, the latter evidently shaping medical thought and opinion more and more and incidentally coming in for an increasing amount of the material benefits.

BOOK REVIEWS.

"RAILWAY SURGERY."—A practical work on the Special Department of Railway Surgery, For Railway Surgeons, and Practitioners in the General Practice of Surgery. By C. B. Stemmen, A. M., M. D., L.L.D., Professor of Surgery in the Fort Wayne College of Medicine, &c. Illustrated. Cloth, octavo, 316 pages. St. Louis: J. H. Chambers & Co.

The first work on this special subject published and for which there has been a great demand. The subjects, under this special branch are well treated and the work should be in the library of every general and local railway surgeon in the country.

In future editions such subjects as "Temporary Treatment in cases of Railway Injury," should not be dismissed in three pages; they are good, therefore we ask for more.

We also ask the publishers to be a little more liberal in the matter of original cuts; such engravings as that of the old shoe shown on page 147 tells its story better than words can describe, even though the artist had apparently done his work in a saw-mill.

J. C. MCCLINTOCK.

LATIN GRAMMAR OF PHARMACY AND MEDICINE. By D. H. Robinson, Ph. D., Prof. of Latin Language and Literature University of Kansas, with Introduction, by L. E. Sayre, Ph. G., Prof. of Pharmacy in, and Dean of Department of Pharmacy, University Kansas. Published by P. Blakiston, Son & Co.

This is a most valuable little work for instruction and assistance in those points where the average physician is most lacking, *i. e.*, the correct and grammatical construction of prescriptions; giving a thorough and systematic course in the Latin particularly adapted to the use of physician and pharmacist.

POST-MORTEMS; WHAT TO LOOK FOR AND HOW TO MAKE THEM. By A. H. Newth, London. Edited with numerous notes and additions, by W. F. Owen, M. D., formerly Demonstrator of Anatomy, Detroit College of Medicine. Cloth, 12mo.; postpaid, $1 00. The Illustrated Medical Journal Co., Publishers, Detroit, Michigan.

This book is replete with information that every person interested in necroscopy should have at easy command. It has not been designed to take the place of large works upon pathology, by its authors, but to present, in a tabulated way, with quick side-head references, all the conditions of an organ met with post-mostemly, either in health or disease.

COMPEND OF ANATOMY. By Samuel O. L. Potter, M. A., M. D. Published by P. Blakiston, Son & Co.

These Compends are already so well known, and have taken such an important place in the equipment of the medical student that further comment is unnecessary. We may say, however, that the last edition shows much improvement over former ones. The addition of a large number of plates and diagrams is only one of the important features of the new work.

SURGICAL HAND BOOK—For the Use of Practitioners and Students. By Francis M. Caird, M. D., F. R. C. S., and Chas. W. Cathcart, M. B., F. R. C. S. Published by P. Blakiston, Son & Co.

This is a most convenient book, and well adapted for emergency cases where the young practitioner, or even the old ones, may need a little freshening up. It contains a vast amount of useful information in such a convenient form that a moment's investigation might settle a grave doubt. Being well bound in oil cloth, is adapted for constant and rough usage.

In treating chronic forms of eczema especially where there are crusts, scales, excoriations and fissures, do not forget the value of the tarry preparations, oil of cade and the like.

of every case except old standing ones with external fistulas established. It furnishes valuable indications in our further treatment, assists the lung to expand and prepares the patient for the operation we may select in his particular case. By it we determine the quality of the pus drawn away. The amount remaining after carefully and thoroughly aspirating several times gives us quite a correct idea of the size of the abscess cavity, the condition of the lung, its adhesions and expansibility.

The prospect of cure by aspiration is always good in children where the case is of a recent origin and the pleural sac can be completely evacuated of laudable pus. In such cases the aspirations should be frequently repeated, not allowing any considerable amount of pus to accumulate.

The rapidity of accumulation should be our guide as to the frequency of aspirations, and we should continue as long as there is a steady diminution in the amount of the liquid drawn at each subsequent aspiration.

The operation is simple, almost painless, and perfectly devoid of danger when properly done and in the majority of cases in the above class, I believe will almost always be successful. In examining the literature of this subject I find many instances where children have been cured by two or three aspirations. A. Jacobi mentions having three cases occurring in a single year cured by one aspiration each.

I have had but four cases perfectly cured by aspiration. For the operation any vacuum aspirator may be used. The more simple the instrument the better. After rendering one of the larger needles aseptic by heating in boiling water or flame of spirit lamp, it may be introduced in the sixth intercostal space in line with the posterior axillary fold. It is desirable to remove the liquid if we can do so without risk, but if the patient be annoyed by persistent cough and the displaced organs do not resume their proper position after two or three aspirations, we may be assured that the changes in the pleura and adhesion to the chest wall do not permit the expansion of the lung, and aspirations had better be abandoned in favor of the open method.

This may be practiced by any of the following modes of operation: First, simple incision; second, simple incision with drainage; third, free incision with drainage with or without exsection of a rib; fourth, Thoraco-plasty (Estlanders operation.) All cases where the abscess sac cannot be entered without the introduction of air to displace the liquid must be treated by one of these methods of operation. Since air must enter before the liquid can be evacuated, it is always desirable to render the air aseptic.

Small cavities not entered on aspiration, especially in young patients and children, may be treated by simple incision. This should be done after having first aspirated thoroughly as possible when the liquid is laudable pus, and in the most dependent part of the chest, which is in about the fifth intercostal space when the patient is in the recumbent posture.

The operation should be carefully antiseptic and likewise all subsequent dressings.

It is important to keep the lung filled to its fullest capacity, and the dressing should be applied so as to allow an easy exit of air from the abscess sac, but to prevent its entrance at the same time. This may be accomplished in the following manner: Place a handful of gauze wrung out in an antiseptic solution immediately over the wound and over this a piece of Macintosh sufficiently large to reach beyond the gauze. Over this place ten or a dozen folds of dry gauze, lastly a small fold of absorbent cotton. The whole dressing may be covered by a piece of gauze and retained by an elastic bandage. This is the dressing nsed by A. T- Cabot, and fulfills the indication better than any other. By this dressing little or no air enters, and if any does it is made aseptic.

Incision and drainage is applicable to the same class of cases in which we practice simple incision, except that the pus is more or less offensive, and we wish to wash out the abscess sac with some antiseptic solution, iodine, carbolic acid and corrosive sublimate, have been and still are used, but I believe are more or less dangerous. I believe liquor sodæ chlorinatæ to be as good as any and less dangerous as it contains no poisonous or irritant properties. One part of liquor sodæ chlorinatæ to thirty or forty of sterilized water

is a good antiseptic and can be used without danger of irritation or poisoning.

The tube or tubes to be employed should be of soft rubber and just long enough to reach through the parietes and hold in position by pins resting on a rubber shield surrounding the tube.

Past experience has proven that canula made of metal, wood or hard rubber frequently cause ulceration of the soft structures surrounding them and necrosis of the ribs, therefore these should not be used.

The abscess cavity should be carefully and thoroughly irrigated at any time that the liquid becomes at all offensive or putrid.

The dressing should be applied the same as in simple incision and changed every two or three days, according to the amount of pus discharged.

Free incision (pleurotomy) consists in making a large opening in the chest between the ribs. The opening is large enough so that it not only permits of the escape of the contained liquids, but also gives access to all putrifying matter and debris. The operation is applicable to chronic cases where the matter aspirated is very offensive. This condltion denotes the presence of flocculi and fibrmous masses undergoing putrid transformation in the sac.

This condition quickly gives rise to septicœmia and death. In this class of cases ordinary means is simply a loss of time. It is imperative to make a free incision at once and remove all decomposing matter, and thoroughly cleanse the abscess sac with an antiseptic wash.

The incision should be made at about the eighth intercostal space, as at this point is usually found the most bulging of the chest walls. In all the operations by incision, care must be taken that the knife is carried close to the upper border of the lower rib, to avoid wounding the intercostal artery.

After thoroughly removing all pus and debris from the cavity of the abscess, even using the fingers if necessary, apply the dressing. This is done the some as in the preceding operation.

RESECTION OF RIBS OR ESTLANDER'S OPERATION.

In some chronic cases of empyema in which the lungs has been subjected to long continued pressure it becomes almost entirely impermeable to air. The pulmonary pleuro becomes thickened by organized inflammatory products, contracts and acts in the prevention of lung expansion. Likewise changes take place in the lung substance itself. False membranes that cannot be separated bind the lung pleura to the chest wall. This condition being present it is neeessary to devise some means which will bring the chest wall in contact with the lung surface in order to close the abscess sac. Fresh incision and washing if ever so well done, cannot accomplish this. It is of prime importance that we ascertain the true condition at the earliest moment possible so that we can resort to the proper operation. This can be done by the intelligent use of an aspirator and physical diagnosis. In this last class of cases we have nothing better nor so good as Estlander's operation, which consists of resecting one or more ribs. The extent and number of the resections is to be determined by the size of the cavity to be dealt with.

Free and continuous drainage is essential to the success of the operation.

Frequent and thorough washing must be practiced. All decomposing matter must be removed. If fever continues after washing it is in all probability evidence that there is decomposing matter somewhere inaccessible to the irrigating fluid. This may be collected in little pouches here and there.

In my judgment such a condition warrants the introduction of the hand and the breaking down of these pockets so that their contents may be removed, otherwise a fatal termination is inevitable.

Tubes for drainage must be removed and cleansed every two or three days or new ones substituted. Dressings should be applied after this operation, under the same precautions given above.

RESUME.

First—The aspirator is indispensible as a means of diagnosis in empyema, and that it affords us reliable evidence in regard to condition and extent of the abscess with which we have to deal, thereby indicating the operation to be selected.

Second—That a class of cases of empyema can be cured by means of repeated aspirations.

Third—That the operation should be selected with regard to the size of the pus collections ofter aspirations. That which will occomplish a cure in one case will completely fail in another.

Fourth—That thoracophsty is called for only in that class of cases in which the lung is totally incapable of reaching the chest wall by expansion.

Fifth—That the most rigid antisepsis is, above all things else, imperative in these operations.

My attention was called to-day to an editorial note from the Kansas City *Medical Index*, referring to your paper read at Topeka, in which the editor says:

1. "Every woman who has borne children has a lacerated cervix."

2. "Subinvolution is the cause of the eroded os, leucorrhœa, &c.

3. "Rest, and a little treatment without operation, cures them."

Now this short and pointed explanation reminds me of the definition of a crab, given by a student to Prof. Curvier,, thus: A crab is a little red fish that walks backward;" whereupon the great naturalist replied, "Very good, with three exceptions—first, a crab is not red; second, it is not a fish; third, it does not walk backward." Just so with the editor's comments:

1. Every woman who has had children does *not* have a lacerated cervix, and many of them who have lacerations have them to so slight an extent as to require neither operation nor local treatment; and these are the cases so glibly referred to by the editor as injuries that get well without operation. In ten years' experience with a large gynecological clinic and extensive hospital work, in addition to a good private practice in surgical diseases of women, I have found the conditions described by you in your paper to require operation, and that any other mode of procedure would give the patient no permanent benefits. This also is the experience of all those who have extensive practice in this specialty. And the physician who ignores this fact, like the opposer of antiseptic surgery, will soon find himself a "back number."

2. That subinvolution is the cause of all these troubles is another error; because subinvolution is the cause of nothing. It is not a cause; it is a result of a laceration or some other injury, and is no more to be considered as a disease *per se* than leucorrhœa, each being a symptom or the result of disease or injury, and the removal of the cause results in the relief of the symptoms.

Thus when the cervix is lacerated at a confinement, nature makes an effort to repair the injury, as it does any other wound, by bringing the material to the parts through the medium of the circulation, thus increasing the hyperæmia and constructive material. At the same time the uterus should be undergoing physiological fatty degeneration as a means of involution, thus bringing to bear two forces in opposite directions upon the same body at the same time; the result therefore, will, of necessity, be incomplete in both instances—that is, failure to heal the laceration and subinvolution of the uterus; and these conditions are only remedied by Emmett's operation, or as you have suggested in your paper, by "an immediate operation for the repair of the lacerated cervix" in the lying-in room.

My reports upon that operation have demonstrated their importance and usefulness.

3.—Rest and minor treatment does *not* cure all these cases, and where there is much laceration it does not cure *any* of them, Mr. Editor, to the contrary notwithstanding.

It is the experience of every gynecologist who has a large experience in city practice, or who has had charge of an extensive clinic in any of our colleges or dispensaries, that hundreds of these unfortunate women have passed through a course of treatment indicated by your critic until they have become "bedridden invalids," and then were operated upon by a competent surgeon with the happiest results.

In over five hundred operations of this kind I have no regrets, in one single instance, and can point to cases in a dozen states who have substantial reasons to rejoice over the benefits of Emmet's operation.

I congratuiate you not only upon your

paper, but also upon the results you have had in your operations.

E. P. MURDOCK.

CHICAGO, October 27, 1890.

Herniotomy.

Report of a Case to the Eastern Kansas District Medical Society, October 14, 1890.

DR. L. REYNOLDS, M. D., HORTON, KAS.

Mrs. W. T. R——, thirty-five years old, the mother of six children, was ruptured thirteen years ago during her second confinement.

The hernia was spontaneously reduced, but recurred from time to time and as often disappeared without manual aid.

The enlargement always appeared in the left inguinal region and the patient was told by a former medical attendant that the tumor was ovarian.

On September 14, the patient attempted to have an evacuation of the bowels, having had no action for four days, when she felt a severe griping pain which induced her to bear down, but no motion occurred.

The family physician was summoned, but as the lady entertained a mistaken notion regarding the nature of the enlargement, refused an examination.

Enemata were used which partially evacuated the bowel beyond the seat of obstruction.

This was followed on the second day by three two grain doses of calomel combined in pill form with opium and camphor, after which other purgatives were administered.

During all of this time there was excessive vomiting and pain. I was told that, not until the morning of the third day, did it dawn upon the mind of the aged attendant that there was something more serious than simply constipation with which to deal. He made an examination which revealed what he regarded as an inguinal hernia, and I want to say right here that I believe it is not always possible to positively determine the distinctive points by external land marks between inguinal or femoral hernia, for it was not until the exploratory incision that all doubt was removed in this case.

An effort was made, or rather several efforts, to reduce the tumor, but without success; although partial success was claimed and the friends were lulled into further false security because there was less pain and vomiting thereafter.

On the afternoon of the fourth day Dr. Hackadorn of Horton, was called who appriseed the husband of the gravity of his wife's illness.

He, with the attending physician administered chloroform and tried taxis again, but as before failed of reduction.

I was asked to see the case in the evening with a view of deciding an operative measure. As I was feeling ill during the evening decided to delay the operation till next morning when the temperature was 97°, pulse 130.

After shaving and the application of antiseptics to the surface, an incision two inches long, the centre of which was over the saphenous opening, was made paralell to and one half inch internal to the artery to avoid the vein.

Found the sac adherent to the surrounding tissues as well as to the bowel. The separation was made mainly by digital dissection, but the seat of constriction was found to be partially within the sac which, with the long standing of the hernia furnished a double indication for opening it, which was done.

The long axis of the hernial tumor ran about parallel with Poupart's ligament, but covered it up.

Had no hemorrhage except a little oozing. Found the bowel of dark color and resembling parchment in feel and appearance but was intact.

We decided from the condition of both the patient and the bowel that it made little difference whether the latter were left in or out of the abdomen, but put it back whence it came.

A drainage tube was inserted and the wound dressed as usual.

The temperature following the reduction reached 99° but soon fell to 67°.

Patient died thirty hours after the operation.

The autopsy showed considerable serous liquid in the peritoneal cavity. A nuckle of the small intestine whose apex was composed of the convex surface of the bowel and whose

base gave the appearance that would follow the application of a ligature around a flexure of the bowel constricting it at its messenteric border.

I am satisfied from a review of the case that mortification had set in, in the strangulated bowel as early as the morning of the third day when its venous return had been entirely impeded about thirty-six hours. The patient at that time got some relief from pain and vomiting, resulting, in my opinion from death of the bowel and the logical conclusion that the operation, to have been successful, should have been performed, at the latest, within thirty-six hours.

Impaction of Fæces with Fissure and Irritsble Ulcers.

G. C. IRWIN, M. D., SABETHA, KS.

The history of rectal diseases does not record a more distressing condition for a patient than the above title indicates, especially the two latter combined. Being situated at an orifice of the body requiring daily action, one of the requirements known to surgery as essential to healing and cure, viz: rest, is almost impossible. The old treatment of cauterizations and application of soothing and healing ointments were good as far as they went, but have proved unsatisfactory; and have failed in the majority of cases. Besides the actual local pain caused by fissure and ulcer, the reflex disturbance at times is still more disastrous. A sensory nerve filament exposed by the ulcer receiving impressions which are conveyed to that portion of the spinal cord from which the lumbar, sciatic and pudic nerves spring, and we find as a consequence, symptoms along these trunks, affecting the back genito-urinary organs, and lower limbs. I only wish to demonstrate in this article how certain and simple the cure for this condition is. A patient who had suffered from, as she said, a fissure and ulcer for over two months without relief, fell into my hands for treatment. She was naturally a large robust woman, the picture of health, but when I first saw her, the change was very great. The countenance was care worn and sallow, appetite lost, fearfully emaciated and the very picture of distress and suffering. On attempting to make a vaginal examination, I found it impossible to do so without a narcotic, on account of the severe vaginitis and cystitis existing. On administering sufficient morphia to make it possible, the examination was renewed, when I found a condition heretofore unsuspected, viz; impaction of the fæces. The mass was almost as large as a child's head, globular, and almost solid. Rectal examination revealed two or three external piles, and extending from one of them, the sentinel, a fissure on the dorsal aspect of the rectal wall, reaching and lying upon the internal sphincter, where it spread into a large circular ulcer. I immediately determined upon the treatment so enthusiastically insisted upon by Dr. J. M. Richmond, and with the assistance of Dr. E. B. Slossen, after an anæsthetic had been administered proceeded to forcibly dilate the sphincters, remove the impaction after crushing, and as a measure of precaution, cauterized the ulcer. The bowels were kept quiet with opium for eight days, and then allowed to empty themselves which they did, and for two or three days the motions were accompanied by a glairy mucus, characteristic of inflammation of the lower bowel, but under the administration of large enemæ of water, medicated, with ʒii of nit. of silver to the quart, the bowel resumed natural and healthy function. At this date, three weeks after operation, the cystitis is almost cured, spontaneously, action of bowels normal, and the general condition of the patient much improved. Whether the fissure and ulcer caused the impaction or vice-versa, I am unable to determine.

A $200,000 Libel Suit.

Suit has been entered by William Radam manufacturer of Radam's Microbe Killer, against the *Druggists Circular*, of New York for $200,000 damages, the largest amount so far as heard from that was ever asked for in a libel suit of this kind.

The pleadings show that the action is brought to recover damages claimed to have

been done the business of the plaintiff by an article published in the *Druggists Circular* for September, 1889. This article gave the result of analysis of the Microbe Killer made by Dr. R. G. Eccles, a prominent chemist of Brooklyn, who stated that an identical preparation could be made by the following formula:

Oil of vitriol (impure)	4 drams.
Muriatic acid (impure)	1 dram.
Red wine about	1 ounce.
Well or spring water	1 gallon.

This mixture, it was alleged, could be made at a cost of less then five cents per gallon for which Radam charged three dollars.

It was further alleged that while when properly used sulphuric acid, the principal constituent of the Microbe Killer, was a valuable medicine, it was, when taken without due caution or advice, a slow but certain cumulative poison; and theories advanced by Radam, as to the causes of diseases and the proper method of treatment, were alleged to be totally erroneus. Col. Robert G. Ingersoll, the famous lecturer, is the counsel for the plaintiff

The *Druggist Circular* which is published at 72 William street, New York, expresses a desire to hear of any case in which unfavorable results have followed the administration of the Microbe Killer or of any other fact that would be interesting under the circumstances. They claim to have published this analysis without malice and with the sole intention of protecting the public from the loss of their health and money by the use of a dangerous nostrum.

Excerpts from Foreign Literature.

TOTAL INVERSION OF THE UTERUS, GREAT COLLAPSE; INTRAVENOUS TRANSFUSION OF SODIUM CHLORIDE SOLUTION-CURE.

The patient is a 33 year old primipara; normal labor with following grave hemorrhage. The midwife felt a tumor in the vagina from which the blood came. She sent for two physicians, who transferred the woman to the hospital. Two hours had at least elapsed since the placenta was born. The patient was in a state of deep collapse. The "doughy tumor" was the completely inverted uterus. After æther injection reposition was attempted but had no result. In order to induce moderate anæsthesia hypnotism with passes was employed (chloroform was considered as too dangerous) and the purpose was accomplished without causing complete unconsciousnesss. After reposition of the uterus the hæmorrhage ceased, but the collapse began to be more severe. One-third (quart) of a six per cent. solution of common salt was introduced into the circulation, by the median vein. The effect was striking; the pulse became stronger and the patient opened her eyes. After a few days septic endometritis set in, which was successfully combatted by intra uterine injection of carbolic acid solutions, (hhgica VII.)

DR. BERGSTRAND,
STOCKHOLMN, SWEDE.

Forms of Insanity.

In Starr's late work, "Familiar Forms of Nervous Disease," we find the following classification of mental derangements:

1. Defect of brain—
   - (a) Idiocy.
   - (b) Imbecility.
   - (c) Feeble-mindedness.
   - (d) Psychical degeneracy (paronia.)
2. Diseases of brain—
   - (a) Mental depression (melancholia.)
   - (b) Mental exaltation (mania.)
   - (c) Mental enfeeblement (dementia.)
   - (d) General paresis (dementia paralytica.)

Some grouping of similar cases of mental alienation is convenient at least, and the above arrangement seems a practical one.

℞ Chloralamid, ʒ iv.
Spts. vini gaice,
Curacoæ *aa*, ʒ xxxii.

M. Sig. One tablespoonful in water, repeated in four hours if required.

This drug, chloralamid, is represented as a hypnotic without danger. We would warn those prescribing it that it is not without danger, and we advise those prescribing it to give small doses until the effect on the patient is noted.

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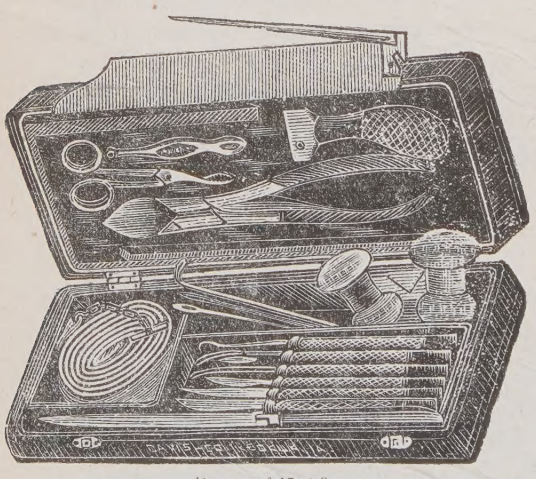

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